JVC-03494

JVC

SERVICE MANUAL

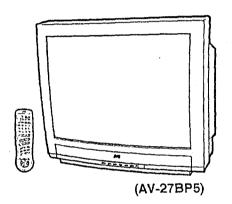
COLOR TELEVISION

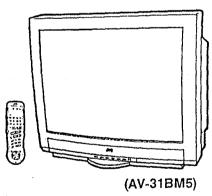
AV-27BP5(us/ca) / AV-31BP5(us/ca)

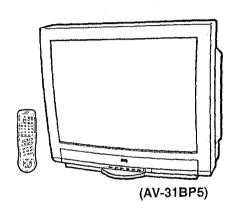
AV-31BM5(US/CA) / AV-35BP5(US/CA)

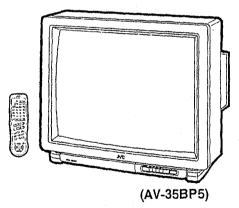
BASIC CHASSIS

GM









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OPERATING INSTRUCTIONS

JVC

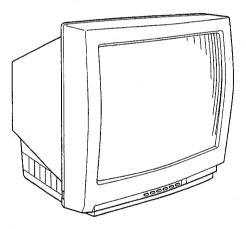
AV-27BP5 / AV-31BP5 / AV-35BP5 / AV-31BM5

COLOR TELEVISION

USER GUIDE

Thank you for purchasing this JVC color television.
To ensure your complete understanding, please read this manual thoroughly before operation.

- · Safety Precautions on page 2 and 3
- · Service Information on page 39
- · Limited warranty on page 40



(The illustration above is of AV-27BP5)

PREPARATION (page 7) 1. Connecting Antenna and Power cord 2. Inserting Batteries into your Remote control 3. Turning the Power ON/OFF 4. Presetting the Channels 5. Self-demonstration mode BASIC OPERATING PROCEDURE (page 10) Watching a Television Program Two-picture Screen MENU selection

SOUND AND PICTURE (page 16)	
HANDY CHANNEL SELECTION (page 20)	
TIMER OPERATION (page 24)	
OTHER FEATURES (page 27)	
CONNECTION (page 30)	
TROUBLESHOOTING (page 36) [

For Customer Use:

Enter below the Model No. and Serial No. which are located on the rear of the cabinet. Retain this information for future reference.

Model No.

Serial No.

SAFETY PRECAUTIONS





within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to The lightning flash with arrowhead symbol ersons.



The exclamation point within an equilateral ritangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the iterature accompanying the appliance.

CAUTION:

To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

MPORTANT SAFEGUARDS

CAUTION: Please read and retain for your safety.

Your TV set is equipped with a polarized AC line plug (one blade of the plug is wider than the other).



This safety feature allows the plug to fit into the power outlet only one way. Should you be unable to frisent the plug fully into the outlet, try reversing the plug. Should it still fail to fit, contact your electrician.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE

Caution:

Changes or modifications not approved by JVC could oid the warranty.

CAUTION: TO INSURE PERSONAL SAFETY, OBSERVETHE FOLLOWING RULES REGARDING THE USE OF THIS UNIT

Operate only from the power source specified on

the unit.

- 2. Avoid damaging the AC plug and power cord. 3. Avoid improper installation and never position the unit where good ventilation is unattainable.
 - 4. Do not allow objects or liquid into the cabinet openings.
- 5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover

Caution:

When you don't use this TV set for a long period of time, be sure to disconnect both the power plug from the AC outlet and antenna for your safety

Electrical energy can perform many useful functions. This TV set has been engineered and manufactured to assure your personal safety. But improper use can result in potential electrical snock or fire hazards. In order not to defeat the safeguards incorporated in this TV set, observe the following basic rules for its installation, use and servicing. Also follow all warnings and instructions marked on your TV set.

NSTALLATION

(POLARIZED-TYPE)



- Operate the TV set only from a power source as indicated on the Yea or or efect to the operating instructions for this information. If you are not sure of the type of power supply to your home, consult your TV set deather for local power company. For battery operation, refer to the operating instructions.
- Overloaded AC outlets and extension cords are dangerous, and so are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement. တ
 - Do not allow anything to rest on or roll over the power cord, and do not place the TV set where power cord is subject to traffic or abuse. This may result in a shock or fire hazard. Do not use this TV set near water — for example, near a bathtub, washbowi, kitchen sink, or laundry tub, in a wet basement, or near

swimming pool, etc.

deep pile carpels.
Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

If it an outside antenna is connected to the TV set, be sure the antenna system is grounded to so to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the section with respect of grounding of the seed in wive to an antenna discharge unit, size of grounding orthelestly with succession of antenna discharge unit, size of grounding orthelestly in a national discharge unit, size of grounding orthelestly in the grounding precincel.

- Caution children about dropping or pushing objects into the TV set through caping common Some internal nate can be accordance. set through cabinet openings. Some internal parts carry hazard voltages and contact can result in a fire or electrical shock.
 - Upplug the TV set from the wall outlet before cleaning. Use a slightly damp (not wet) cloth. Do not use liquid or an aerosol cleaner
- Never add accessories to a TV set that has not been designed for this purpose. Such additions may result in a hazard.

An outside antenna system should not be located in the vicinity of worthad power fines or other electric light or power circuits, or where it can fall into such power lines or circuits. When itstalling an outside antenna system, extreme care should be traken to keep from louching such power lines or circuits as contact with them might be fatal.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE

For added protection of the TV set during a lightning storm or when the TV set is to be left unattended for an extended period of time, unplug if from the wall outlet and disconnect the antienna. This will prevent damage to product due to lightning storms or power line surges.



ANTENNA LEAD IN WIRE

GROUND



SERVICE

ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)

GROUNDING CONDUCTOR (NEC SECTION 810-21)

Ē

ELECTRIC SERVICE EQUIPMENT

GROUND CLAMPS

POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

NATIONAL ELECTRICAL CODE

- LEG Unplug this TV set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

 A. When the power cord or plug is damaged or frayed.

 B. It igned has been spilled into the TV set.

 C. It the TV set has been exposed to rain or water.

 D. It the TV set does not operate normally by following the operating instructions. Adjust only those controls that are overed in the operating instructions. Adjust only those controls that are overed in the operating instructions. of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV set
 - In formal operation.

 In the IV set hats been dropped or damaged in any way.

 F. When the IV set exhibits a distinct change in performance this indicates a need for service.
- Do not attempt to service this TV set yourself as opening or removing covers may expose you to dangarous voltage or other hazards. Refer all servicing to qualified service personnel.

TV sets are provided with ventilation openings in the cabinet to allow heat generated during operation to be released. Therefore: - Never block the bottom ventilation slots of a TV set by placing

it on a bed, sofe, rug, etc.

Never place a TV set in a 'built-in' enclosure unless proper ventilation is provided.

Never cover the openings with a cloth or other material.

Never place the TV set near or over a radiator or hear register.

- When replacement parts are required, have the service technician wenty in whiting that the replacement parts here ses have the same safety characteristics as the original parts. Use of manufacturers, speedited replacement parts can prevent fire, shock, or other hazards.
- Upon completion of any service or repairs to this TV set, please ask the service technician to perform the safety check described in the manufacturer's service literature.

secured.

- Use only a cart or stand recommended by the TV set manufacturer. Do not try to roll a cart with small casters across thresholds or

Do not place a TV set on a sloping shelf unless properly

G To avoid personal injury:

- Note to CATV system installer.

 This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connested to the grounding system of the building, as close to the point of cable entry as practical. When a TV set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the TV set.

Contents

Locations of Remote control

buttons

PREPARATION	
1.Connecting Antenna and Power cord	
2.Inserting Batteries into your Remote control	-
3. Turning the Power ON/OFF .	
4. Presetting the Channels	
5.Self-demonstration mode	

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Furning Non-broadcasting channels blue

Viewing the Closed Captions

Aessages for Special Days

Displaying the current TV status OTHER FEATURES

BASIC OPERATING PROCEDURE	Watching a Television Program	Two-picture Screen	MENU selection
---------------------------	-------------------------------	--------------------	----------------

Jsing the TV's remote control unit to operation the CATV

converter and VCR.

TROUBLESHOOTING

roubleshooting

Listening to the sound through External Speakers

Connecting External Devices.

CONNECTION

Switching to the Surround Speakers

5 5 4

AV COMPU LINK connection

19	Storing the picture/sound adjustments 19
18	Sound mode with a "being-there" feeling
18	Muting the sound
71 17	Listening to stereo or bilingual broadcasts
71	Adjusting the sound
16	Adjusting the picture
16	Matching the TV to the current room state
	SOUND AND PICTURE

HOW TO LOCATE YOUR JVC SERVICE CENTER

LIMITED WARRANTY (U.S.A. only)

(U.S.A.only)

HANDY CHANNEL SELECTION	Learning Your Favorite Channels	Channel selection according to Category2	Returning to the previous channel	Checking and setting the channel status
HAN	Learni	Chan	Return	Check

11.0 11.0 11.0 11.0 14.0 14.0 14.0

MENU (▼▲▲▶) buttons

© EXIT button

Checking and setting the channel status22
TIMER OPERATION
Setting the Clock
Sleep Timer operation24
Timer operation for the desired programs25
Turning the TV ON/OFF at a set time, every day25
Turning OFF the TV at a set time, every day26

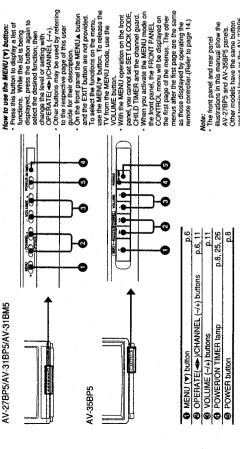
FOR PRODUCTS PURCHASED IN CANADA SEE SEPARATE SHEETS FOR WARRANTY/GARANTIE AND JVC AUTHORIZED SERVICE CENTERS IN CANADA.

9.21 9.21 9.21 9.28 9.10 9.10 9.14 9.14 9.14 9.14 9.14 9.14 Note: - The renote controller illustrations in this manual show the - The PEPG18PE73SPF5 errorie controller. The AV-31BM5 remole controller has the same layout and functions, but has no PIP buttons. ⊕ CHANNEL/HYPER SCAN (-/+) button DISPLAY button POWER button Power button Power buttons (except AV-31BM5) CATEGORY PREVIEW button CLOSED CAPTION button THEATER/AV STATUS button W VCR operation buttons VOLUME (-/+) button Output SLEEP TIMER button 1 LIVE EFFEX button TV/CATV selector TV/VIDEO button RETURN button MUTE button HELP button 7 100+ button HANDER POSITION SOUNCE PREZES SEE <u></u> 9 <u></u> ⊚ <u>i</u> PALC723 REMOTE CONTRO 0 (P) **©** Θ • 0

For the locations of TV buttons and parts, please refer to page 6.

Locations of TV buttons and parts

FRONT PANEL



Mote:

- The front panel and rear panel electrations in this manual show the AV-ZTBPS and AV-SZBPS panels. Other models have the same button and terminal shout as the AV-ZTBPS, but the AV-31BMS rear panel has no PIPMAIN AUDIO OUT jack.

(Example) VCR connected

CATV BOX (If necessary)

Notes (also refer to "CONNECTION" on

Outputs the sound of the picture appearing on the TV.

The output sound level can be adjusted with VOLUME AUDIO OUT (VARIABLE) jacks: pages 30 to 35);

Output the sound and picture that are appearing on the TV. (-/+) on the TV. LINE OUT Jacks:

· A picture that is input to the S-VIDEO jack of INPUT

jacks is not output through the LINE OUT jacks.
If both the NPUT and LINE OUT jacks are connected to the same VCR, the screen becomes distorted except during playback of VCR.

Audio output from monaural equipment is connected to INPUT 2 jack. Audio output is connected to the L/MONO jack. Connect nothing to S-VIDEO jack, when using the

PIP/MAIN AUDIO OUT Jack:

Notes:

When connecting both a cable (75ohm coaxail) and a UHF antenna (300ohm feeder), use an optional antenna
mixer (CEE41467) to make a single
connection.

With this antenna mixer, reception of cable channels higher than "Channel W+17" is not possible.

The power coof is supplied with a polarized blug. Therefore, it will only insert one way into the wall only on the man of the power of the po

your local dealer.

Some cable companies require a converter box to receive all available programs. Others may require it for subscription or itsentium programming. Orderly your local cable company for correct installation.

Notes:
Refer to the manuals provided with the

other devices.

- Interference from connected devices may cause the pottine quality to deteriorate. If pottine noise occurs, turn of devices that you are not using or move them further apart.

- Connect the video signal of S-VHS VCR to S-VIDEO jack.

VHF/UHF antenna or Cable for cable TV 0 0 0 0 0 0 0 0 0 0 VCR Rear panel

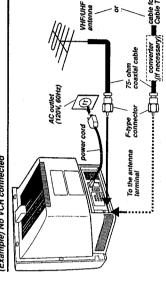
Connecting Antenna and Power cord

Conditions:

 Befor connecting external devices, be sure to disconnect the TV from the AC outlet

When you want to view from a connected device such as a VCR, change the TV input mode with TV/VIDEO. Refer to step 2 on page 10.

Example) No VCR connected



REAR PANEL

 ● Antenna terminal
 p.7

 ② AV COMPULINK jacks
 p.32

 ⑤ INPUT (1.2) jacks
 p.30

 ⑤ INF OUT jacks
 p.30

 ⑥ AUDIO OUT (VARIABLE) jacks
 p.30

 ⑥ PIDMAIN AUDIO OUT jack (except AV.318MS)
 p.30

 ⑥ EXT SPKR switch
 p.31

 ⑥ EXT SPKR jacks
 p.31

9

Is used for connecting condises headphones.

The AY-3IRMS has no PhyMMN AUDIO OUT jack.

This terminal outputs the sound of the picture that is appearing on the TV. The sound of the PIP picture is output when the PIP picture is appearing on the STAPMS Jacks: Refer to page 7.

EXT SPNR Jacks: Refer to page 3.

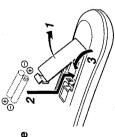
1-4 (No.50850)

6

2. Inserting Batteries into your Remote control

Raise up the latch on the cover to remove it.

Insert 2 batteries into the battery compartment.



Condition:
Use two AAA/R03 batteries.

Follow the cautions printed on the batteries. Caution:

Nates:
Battery life is approximately 6 months to 1 year depending on the frequency

Insert batteries correctly observing and - polarities. If the remote control operates

In manufacturer's VCR or CATV converter code has been set. The set manufacturer's code will be put in memory for the specific line. When you replace the betteries, do his within one minute. If the manufacturer's code is reset, set it again, (Feter to page 43.)

Replace the cover.

2. Press MENU ▼ or ▲ to move the cursor to AUTO (STD, HRC, IRC) or AUTO (OTHERS),

then press

or Iv to select it.

The setting starts automatically

You can set the channels which can be received. The preset channels can be selected with CHANNEL/HYPER SCAN (-/+).

AUTO (STD, HRC, IRC):
Almost all the cable compar
of the following systems:

-AUTO TUNER SETUP

4. Presetting the Channels

Harmonically Related Carrier.
 Incrementally Related Carrier.

AUTO (OTHERS): For other than the above.

DO MOVE CURSOR EXIT

Silis

press

or

to enter the setting menu.

The AUTO TUNER SET UP menu is displayed.

Press MENU ▼ or ▲ repeatedly to select AUTO TUNER SETUP, then

• throw experience a problem, call your cable company. If they use a different system (not STD, HRC, IRC), repeat Step 1 and in Step 2 select AUTO (OTHERS).
• For details on the menu functions, Notes:

refer to page 14.
If you press CHANNEL/HYPER SCAN (-/+), you can confirm the set

This completes the setting.
 PROGRAMMING OVER is displayed and the setting is complete.

Out of a channel to those set with the AUTO TUNER SETUP or to delete one of those channels, refer to "To set a channel for scanning" on page 22.

-AUTO DEMO

You can view demonstration pictures for many of this TV's functions and

5. Self-demonstration mode

operations. Viewing this self-demonstration mode before operating the functions makes this TV's functions and operations easier to understand.

1. Press MENU ▼ or ▲ repeatedly to select AUTO DEMO, then press the ◀ or ► key.

Condition:

When controlling with the remote control, set the TV/CATV selector to TV.

To stop the demonstration, press any button.

The demonstration starts.

Note:

This demonstration mode is repeated in a cycle of about six minutes.

Press POWER

The POWER/ON TIMER lamp goes off. To turn off the TV, press POWER once again.

3. Turning the Power ON/OFF

אנ TV/CATV -Selector POWER/ ON TIMER Ismp O Norther O COMPLETE Front panel

The POWER/ON TIMER lamp lights up.

œ

BASIC OPERATING PROCEDURE Watching a Television Program

BASIC OPERATING PROCEDURE

Watching a Television Program

-TV/VIDEO, TUNER MODE

CHANNEL/HYPER SCAN(-/+) BUTTON: The CHANNEL/HYPER SCAN(-/+) button s a two stage button. The functions change when you press this

NORMAL SCAN UP/DOWN:

-CHANNEL

Select a channel.

Scan selection

The same of the second of the

 to scan DOWN a channel number. + : to scan UP a channel number.

When pressing the button strongly (2nd stage), the stations can be rapidly selected. Only the channel numbers will be scanned, and a station will be selected at the point where you release the button. Each time you press the button lightly (1st stage), the preset stations will be selected one at a time.

HYPER SCAN UP/DOWN:

Only preset channels can be selected with scan selection. (Refer to page 9.) NORMAL SCAN UP/DOWN is carried out through operation on the front

Note:
See also the CABLE TV CHANNEL
CONVERSION CHART. (Refer to page
38.)

Note:
This operation can also be done with VOLUME (-/+) on the front panel.

5 Press VOLUME (-/+).
The level indicato

The level indicator appears.

+: The bars move right and the volume increases.
-: The bars move left and the volume decreases.

Press POWER to turn the power off.

Note:
The POWER/ON TIMER lamp glows
faint without turning off, while the
DUAL ON TIMER ON HOME SITTER is
in operation. (Refer to page 25.)

Direct selection

Q

@ Θ •

<u>ඉ</u>

0

ම ම

 1. Press a number key.
 Example: To select channel 5 (single-digit channel), press 0 and 5.
 Example: To select channel 35 (two-digit channel), press 3 and 5.
 Example: To select channel 115 (three-digit channel). press 100+,1 and 5.

3

BBB. OBB.

POWER/ ON TIMER Iamp

25

-DUAMEL - VOLUME + POWER GITHER

Front panel ₫Ô

POWER

To view TV broadcast
CABLE will be displayed if you have
turned off TV after watching cable TV

If video mode (VIDEO-1, 2) has been selected, press TV/VIDEO repeatedly to switch it to AIR (or CABLE).

AIR (CABLE)

Oge G

VIDEO-2 VIDEO-1

The POWER/ON TIMER lamp lights up.

Press POWER

VIDEO-1,2: To view the video being input to an INPUT 1, 2 jacks. (Refer to page 30.)

The POWER/ON TIMER lamp goes off.

view TV over the air broadcast. To view CABLE stations.

Channel display:
For AIR, the channel number is displayed in light blue and for CABLE, the channel number is displayed in

Note:

• The TUNER MODE (AIR or CABLE) will be automatically set by executing the AUTO TUNER SETUP.

AIR CABLE

If necessary, press MENU ♥ or ▲ repeatedly to select the TUNER MODE, then press ▲ or ▶ to select the AIR or CABLE.

The AV-31BM5 does not have this function) Two-picture Screen

Two screens (one large and one small) can be displayed at the same time. While viewing a playback picture from the VCR, you can also enjoy the TV broadcast.

 Connect the playback device (VCR, etc). (Refer to page 30.)
 You can only listen to the sound of the PIP picture by using cordless headphones (not supplied). (Refer to page 30.) Conditions:

-ON/OFF button

To display the PIP picture

The PIP picture appears. 1. Press ON/OFF.

2. To remove the PIP picture, press ON/OFF again.

The PIP picture disappears.

PIP: Picture in Picture

Vote:

Both the main screen and the PIP picture must be in the same broadcast mode (AIR or CABLE).

-PIP

To swap between the MAIN picture and the PIP picture

-SWAP button

BASIC OPERATING PROCEDURE
PIP

The MAIN picture and PIP picture swap their places.

1. Press SWAP.

To switch the PIP picture input

-SOURCE button

1. Press SOURCE repeatedly to select the desired input.

TV mode:
To view TV broadcast or cable TV
broadcast. Channel number is displayed
on the screen.

VIDEO 1, 2: To view the video being input to an INPUT 1, 2 jacks. V-1, V-2 is displayed on the screen.

FTV mode -►VIDEO-1-►VIDEO-2

To still PIP picture

-FREEZE button

To change the position of the PIP picture —POSITION button

1. Each time you press POSITION, the PIP picture changes position.

Mote:

Il FREEZE is pressed while there is no PIP picture, the PIP picture will appear and then pause.

If the PIP picture is paused, pressing SWAP, SOURCE, or SIZE untreezes it.

The PIP picture pauses. 1. Press FREEZE.

2. Pressing FREEZE once again restores the regular picture.

-SIZE button To change the size of PIP picture

1. Press SIZE.

The size of PIP picture changes.

BASIC OPERATING PROCEDURE

BASIC OPERATING PROCEDURE

MENU selection

-MENU, HELP, EXIT

When operating from menus, you can view screens explaining each function. Most of the television functions can be operated with the remote controller

1. Press MENU ▼ or ▲.

A list of functions is displayed.

Note:
• From here on, "MENU" will be omitted from the ▲▼◆▶ button names.

2. Press ▼ or ▲ repeatedly to select the function vou want.

The function you have selected is displayed in yellow.

3. Press ◀ or ▶ to enter the setting screen.

The setting screen of the selected function will be displayed.

Note:

• To stop the operation midway, press the EXIT button

 When you have completed your settings, press the EXIT button to leave Following the instructions in the on-screen message, use ▼ and ▲ to move the cursor and ◄ or ► to make settings.

Viewing explanations of functions

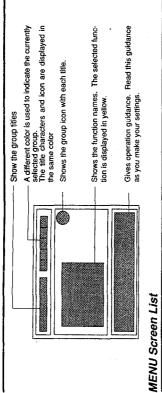
the menu screen,

-HELP

1. Press the HELP button during menu operations. The screen shows an explanation of the currently selected function or

2. To return to the original screen, press the HELP button again.

MENU Screens



PICTURE ADJUST

VNR (AV-35BP5 only) ... NOTCH NOISE MUTE SET AV STATUS COLOR COLOR PICTURE BRIGHT DETAIL

.p.16

SOUND ADJUST

.p.17

O NEXT PAGE

MENU (▼▲)

CLOCK/TIMERS

SET CLOCK
CHILD TIMER
HOME SITTER
DUAL ON TIMER
SPECIAL DAY

SELECT BY 50 OPERATE BY 60 EXIT

Note:

If a function is displayed in yellow, the screen explains it. During setting operations, the screen explains the operation.

CHANNEL ITEMS

22,22

SET CATEGORY PREVIEW YOUR FAVORITES SET LOCK CODE CHANNEL SUMMARY

P AUTO TUNES ESTUP TO THE MODE CARE AND TAKEN WODE CARE AND CACOSED CARE OF THE MODE CARE PAGE AND TO DEMO TO THE PAGE SELECT BY DO COPERATE BY DO CARE BY

INITIAL SETUP

AUTO TUNER SETUP...
TUNER MODE
MUTE LECELOSED CAPTION
AUTO DEMO

999999 90889

SOUND AND PICTURE

THEATER/AV STATUS
PICTURE ADJUST
SOUND ADJUST
MTS

SOUND AND PICTURE

-BASS, TREBLE, BALANCE

Adjusting the sound

-THEATER/AV STATUS Matching the TV to the current room state

You can select the picture ideal for the program you are watching and the condition of the room you are watching in.

1. Press THEATER/AV STATUS repeatedly to select the mode you want.

THEATER-+ BRIGHT ROOM -- CHOICE -- RESET-

The picture changes to the selected mode.
 The on-screen display disappears by itself after a few seconds.

THEATER:

• The picture can have softness and depth Darken the room when viewing program to get the best effect.

You can get the ideal sound according to the program. You may need to adjust the sound to suit the current conditions.

BRIGHT ROOM:
It is suitable for watching programs in a bright room.

CHOICE: Refer to page 19.

RESET:

The sliding scales of TINT, COLOR, PICTURE, BRIGHT, and DETAIL are set at the center.

1. Press the MENU buttons to display the sound adjustment screen.

CA PREVIOUS
TREBLE BALANCE
MIS STEREO SAP MON

Press ▼ or ▲ to select the item to set, then press ⋖ or ▶ to

This completes the setting.
 To leave the menu, press the EXIT button.



Adjusting the picture

-TINT, COLOR, PICTURE, BRIGHT, DETAIL, VNR, NOTCH There are two pages for picture

You can get the ideal picture according to the program and the roombrightness. You may need adjust the picture to suilt the current conditions.

COLOR COLOR COLOR BRIGHT COLOR Press the MENU buttons to display the picture adjustment screen.

2. Press ▼ or ▲ to select the item to set, then press ◀ or ▶ to set its level (or switch it ONOFF).

Set to this for normal picture.

Vote:
The selected item is displayed in yellow.

broadcasts Note: For details on menu operations, refer to page 14. adjustment. • For NOISE MUTE, refer to page 27 and for SET AV STATUS page 19.

Listening to stereo or bilingual

Resetting picture/sound adjustments to factory settings:
Press THEATER/AV STATUS
epeatedly to select RESET.

Set to this when the picture has noise. /NR: (AV-35BP5 only) Video Nose Reduction

When a dotted pattern appears at he border line of colors, and when the lines appear ragged OFF:

This completes the setting.
 To leave the menu, press the EXIT button.

Notes: MTS has no effect on normal sound broadcasts. MTS may not function normally while you are watching cable TV. MTS: Multichannel Television Sound SOUND AGJUST BASS CP PREVIOUS BASS 11 TREBLE 11 EALANCE 11 E MIS STERCO SAP MON ON ANY ON ANY ON ANY PAGE You can enjoy music and sports programs in stereo as well as listen to bilingual broadcasts in either language.

SELECT BY DO

"←ON AIR" is displayed opposite the sound type in use for the current program.

1. Press the MENU buttons to

Press ◀ or ▶ to select the mode you want (STEREO, SAP, MONO).

STEREO:
Stereo audio program
SAP:
Second Audio Program
MONO:
Inflictorion is selected when there is a
lot of noise.

MUTE, MUTE LEVEL LIVE EFFEX SET AV STATUS

SOUND AND PICTURE

SOUND AND PICTURE

Muting the sound

-MUTE, MUTE LEVEL

You can mute the volume completely (to 0) or to a preset level. Muting is convenient when you answer the phone or when someone suddenly visits.

Press MUTE.

The sound drops to the set level and "MUTE" is displayed on the

Pressing it again restores the regular volume.

Notes:

- Muting can also be cancelled by pressing VOLUME (-4-4).

- If the program sound level is already lower than the preset mute level, pressing MUTE sets the sound to 0'.

The SET AV STATUS menu appears.

To preset the mute level

-MUTE LEVEL

1. Press the MENU buttons to select MUTE LEVEL.

SELECT BY BO OPERATE BY BOEXIT BY B B PREVIOUS
AUTO TUNER SETUP
TUNER ENGE CABLE A
MUTE LEVOE CABLE A
CLOSED CAPTON
AUTO DEMO
O NEXT PAGE INITIAL SETUP

2. Press

or

or

to set the mute level

This completes the setting.
 To leave the menu, press the EXIT button.

Sound mode with a "being-there" feeling

You can enjoy the acoustic atmosphere of a theater or sports arena

LIVE EFFEX only works on stereo sound.

Condition:

. Press LIVE EFFEX to alternate the ON/OFF

This completes the setting.
 The on-screen display disappears in a few seconds.

Storing the picture/sound adjustments

- SET AV STATUS

You can memorize picture/sound adjustment settings.

You can easily recall the settings, so that picture and sound settings can be switched over to enhance the program being watched. Press the MENU buttons to select SET AV STATUS.

Pressing ▼ while at NOTCH position displays the sound adjust menu.
Pressing ▲ while at BASS position displays the picture adjust menu.

3. Press ▼ to move the cursor to SAVE AS CHOICE, then press ◄ or ▶ to select it.

press ✓ or ► to sets its level (or switch it ON/

2. Press ▼ or ▲ to select the item to set, then The setting is stored and the screen returns to the MENU screen.
 To leave the menu, press the EXIT button.

To recall the stored picture and sound settings. Press THEATER/AV STATUS repeatedly to select CHOICE.

THEATER → BRIGHT ROOM → CHOICE → RESET

-LIVE EFFEX

The television changes to the stored settings.
 The on-screen display disappears by itself after a few seconds.

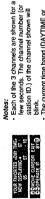
Learning Your Favorite Channels

-YOUR FAVORITES

channels are stored cumulatively in units of 30 minutes. The 3 most frequently watched channels can be displayed, and the one you want can be This TV automatically memorizes the channel being received. The received

The built-in clock must be set. (Refer to page 24.)

Press the MENU buttons to select YOUR FAVORITES.



 Press ▼ or ▲ to move the cursor to the channel The television changes to the channel you selected and the on-screen display disappears. you want, then press ✓ or ➤ to select it.

The current time band (DAYTIME or EVENING) will be displayed in the brackets.

If you select this function when no channels are not stored, "NOT ACTIVE" is displayed on the TV screen.

-CATEGORY PREVIEW Channel selection according to Category

There are six categories and you can set six channels for each category

Setting Procedure

If you need to, select the broadcast mode for the channels you will set (AIR or CABLE).

To select the broadcast mode: Refer to page 10 "Watching a TV program", step 3.

NETWORK NEWS TO WOVIES TO CANCEL TO Press the MENU buttons to select SET CATEGORY PREVIEW.

3. Press ▼ or ▲ to move the cursor to the category you want, then press ◄ or ► to select it.

The six categories are displayed.



DOMOVE CURSOR EXIT

4. Press the MENU buttons to make the settings.

YOUR FAVORITES CATEGORY PREVIEW RETURN

To continue setting other channels:
• To set in the same category.
Repeat 1 and 2 of Step 4.
• To set in a different category.
Repeat Steps 3 and 4.

HANDY CHANNEL SELECTION

Press ▼ or ▲ to select the position to set.
 Press ▲ or ▼ to select a channel.
 Press ▼ to move the cursor to FINISH, then press ▲ or ▼ to select it.

Press ▼ or ▲ to move the cursor to FINISH, then press

or

to finalize your category

A channel which has been set in CHANNEL GUARD cannot be set. (Refer to page 23.)

When you select CANCEL: All the channel settings for all the categories are canceled.

selections.

• Two sets of your favorite channels are stored for each time period; DAYTIME or EVENING.
DAYTIME: 4:00 am to 5.59 pm EVENING: 6:00 pm to 3:59 am

If the clock is not working, this function is not acherated.

If there is a power interruption, stored channels are cancelled.

This completes the settings.
 The settings are stored and the on-screen display disappears.

To select a set channel

1. Press the CATEGORY PREVIEW.

The 6 category are displayed.

Press ▼ or ▲ to move the cursor

to the category you want, then press ◀ or ▶ to select it.

A list of channels is displayed.



NOW PREVIEWING 4 07

NOW PREVIEWING 4 07

NAME OF CARN
ABC 05

Note:

• Esch set channel appears for a few seconds. The channel number (or station ID) of the channel shown will blink.

COMOVE CURSOR EXIT

3. Press ▼ or ▲ to move the cursor to the channel you want, then press ◀ or ▼ to select it.

The television changes to the channel you selected and the on-screen display disappears.

Returning to the previous channel

You can return immediately to the channel you were watching before.

1. Press RETURN.

Channels alternate between the previous channel and original channel.

HANDY CHANNEL SELECTION

CHANNEL SUMMARY SET LOCK CODE

HANDY CHANNEL SELECTION

Checking and setting the channel status

-CHANNEL SUMMARY

You can view a summary of the channel settings and can set the scanned channels, station ID, and channel guarding

To view the settings

Press the MENU buttons to select CHANNEL SUMMARY.

and you can view the current settings. From this The CHANNEL SUMMARY menu is displayed menu, you can make these settings.



Set or cancel the selected channel with the CHANNEL/HYPER SCAN (-/+) button. The preset channels are marked ./. The channels preset with AUTO TUNER SETUP are also marked ./.

Set a station name of up to 4 characters. You can set station names for up to 50 channels.

(3): Channels are set that you can not watch without inputting the LOCK CODE.

This sets the channels you can tune with the CHANNEL/HYPER SCAN (-/+) button. You can also delete channels set with AUTO TUNER SETUP.

To set a channel for scanning

Before making this setting, display the CHANNEL SUMMARY menu

The scanned channels are marked J.

to select the channel you want to set.

To leave the menu, press the EXIT button.

This completes the setting.

To select a channel to set while the CHANNEL SUMMARY menu is being displayed, use the CHANNEL/HYPER SCAN (-/+) button. Each time you press the button lightly (1st stage), one channel each will be

(2nd stage), the cursor will move to the channel of the next scan setting. When pressing the button strongly

To set other channels:
With the CHANNEL/HYPER SCAN (-/+)
button, move the cursor to the channel
you want to set and repeat Step 1.

Motes:
The LOCK CODE is the same as that of CHILD TIMER. The LOCK CODE is '000' when the TV' is shipped from factory or after a power interruption.
A guarded channel cannot be assigned to CATEGORY PREVIEW, DUAL ON TIMER, Or HOME SITTER.

To set other channels:
Press CHANNELHYPER SCAN (¬++)
button, move the cursor to the channel
you want to set and repeat Step 1.

Note:

• Guarded channels can not be selected with the CHANNELHYPER SCAN I---button.

If the wrong LOCK CODE is entered:
"INVALID LOCK CODE." is displayed
and the channel remains unchanged.

If the LOCK CODE has been forgotten: Set another lock code.

To set the LOCK CODE

This procedure sets the lock code, which is used for the CHILD TIMER and for watching guarded channels. Press the MENU buttons to select SET LOCK CODE.

The SET LOCK CODE menu is displayed. Press 0 before the symbol disapears.

Motes

The station ID is displayed when a drammel is selected and when YOUR FAVORITES or CAFEGORY PRECIPE So CAFEGORY Charles or Channels for which station IDs have been set are automatically set for scanning. When you delete a preset channel from scanning is station to Is deared automatically too.

Before making this setting, display the CHANNEL SUMMARY menu

to select the channel you want to

Condition:

CHANNEL DE IIII

Press ▼ or ▲ to move the cursor to the ID row. Press ⋖ or ▶ to

The station ID setting menu is displayed. enter the ID setting menu.

A four-character station name can be displayed together with the channel

To set station IDs

then press the .

Repeat Step 3 to set a 3-digit LOCK CODE.

Press 0 **(1-**

This completes the setting.

As each character is finalized, the cursor moves to the next position. press the v to finalize it. Repeat Step 2 to set four characters.

Press

or

to select the character, then

To set other channels:
With the CHANNEL/HYPER SCAN (-/+)
button, move the cursor to the channel you
want to set and repeat Steps 1 and 2.

 This completes the setting.
 Select FINISH to return to the CHANNEL SUMMARY menu. To leave the menu, press the EXIT button

To set channel guarding (CHANNEL GUARD)

This sets channels so they can not be watched without inputting the lock

 Before making this setting, display the CHANNEL SUMMARY menu to select the channel you want to set.

Press ▼ or ▲ to move the cursor to the ⊕ row, then press 0.

The guarded channels are marked .

To leave the menu, press the EXIT button. This completes the setting.

To view quarded channels

1. Press the number keys to select

The on-screen display appears requesting your the guarded channel

LOCK CODE.

2. Press the number keys to input the lock code.

 The on-screen display disappears and the television changes to the channel you selected.

To leave the menu, press the EXIT button.

TIMER OPERATION

Setting the Clock

The TV has a built-in clock which keeps and displays the current time on the screen. The timer functions won't work, and cannot be set, if this clock

1. Press the MENU buttons to select SET CLOCK.

The SET CLOCK menu is displayed.

If a timer function is selected without setting the clock:
"POWER INTERRUPTED WOULD YOU SET CLOCK FIRST?" appears BEMOVE CURSOR EXIT

Press ▼ or ▲ to move the cursor, then press ▼ or ▶ to set the current time and date.

Press ▼ to select START CLOCK, then press or ► to start the clock.

"THANK YOU" is displayed and the on-screen display disappears.

on un sucret.

If you select YEE, the SET CLOCK
menu is displayed, Set the clock.
Once the clock is set, the display
returns to intere setting mode and you
are able to set the time.
If you select NO, time setting mode
ends and a message appears telling
you that the linger cannot be set. AM: To set the morning time

PM: To set the atternoon and evening

Sleep Timer operation

-SLEEP TIMER

The TV will turn off even after you fall asleep while watching it.

The built-in clock must be set. (Refer to page 24.)

. Press the SLEEP TIMER to set the duration.

Each time you press SLEEP TIMER, the duration increases 15 minutes.

0-+15-+30-+45-+60-+75-+90-+-

Once the SLEEP TIMER operates, its

- setting will be canceled.

 If the TW is turned for it hase is a power interruption, the SLEEP TIMER will be canceled.

 The SLEEP TIMER can be set to turn off up to 180 minutes after the current off up to 180 minutes after the current
- units.
 TIMER cannot be set to working, the SLEEP
 TIMER cannot be set.
 20 seconds prior to turning oil the TV,
 "GOOD NIGHTI! PUSH SLEEP TIMER
 BUTTON TO EXTEND' will be
 displayed on the screen. If you press
 SLEEP TIMER while his message
 appears on the screen, sething will be
 delayed by 15 minutes.

-DUAL ON TIMER Timer operation for the desired programs

SET CLOCK SLEEP TIMER DUAL ON TIMER HOME SITTER

TIMER OPERATION

The TV turns on at the set time, and the channel changes to the one you have set. Up to 2 programs can be set.

Condition:

If there is a power interruption, the clock will stop. However, if the power interruption lasts only a few minutes, the clock will be slow by the number of minutes when the power cut off. In these cases, you need to set the clock control.

again. The time is given in 12-hour format.

-SET CLOCK

• The built-in clock must be set. (Refer to page 24.)
• If necessary to select the broadcast mode for the channels you will set (Refer to step 3 on page 10.)

Press the MENU buttons to select DUAL ON TIMER.

The DUAL ON TIMER menu is displayed.

ON TIME CHANNEL ON TIMER

Notes:

- Once the DUAL ON TIMER operates its setting will be canceled.

- If there is a power interruption, the DUAL ON TIMER will be canceled.

- If no operation is done within two hours after the TV turns on by the DUAL ON TIMER, the TV will turn off automicially.

- If the clock is not working, the DUAL ON TIMER cannot be set. COOPERATE IT BY

1: DUAL ON TIMER 1 2: DUAL ON TIMER 2

1. Press ◀ or ▶ select Timer 1 or 2.

2. Press ▼ to move the cursor, then press ◀ or ▶ to set the time for the

television to come on. 3. Press \blacktriangledown to move the cursor, then press \blacktriangledown or \blacktriangleright to set the channel.

Press ▼ to move the cursor to FINISH, then

Press ▼ to move the cursor, then press ◄ or ▶ to select YES.

2. Press the MENU buttons to make each setting.

AM: To set the time for the morning. PM: To set the time for the afternoon and evening.

Note:
• The DUAL ON TIMER cannot be set for channels set under CHANNEL GUARD. (Refer to page 23.)

The settings you have made are stored and the television returns to the This completes the setting. To leave the menu, press the EXIT button.
 When you switch off the power, the POWER/ON TIMER lamp glows dimly.

HOME SITTER Turning the TV ON/OFF at a set time, every day

The built-in clock must be set. (Refer to page 24.)
 if necessary to select the broadcast mode for the channels you will set (Refer to step 3 on page 10.)

You can turn on the TV to a set channel at a set time, and then turn it off at a set time.

canceled.

If the clock is not working, the HOME SITTER cannot be set.

If there is a power interruption, the HOME SITTER setting will be

Press the MENU buttons to select HOME SITTER.

The HOME SITTER menu is displayed.

ON TIME 1:00 PM OFF TIME 2:00 PM CHANNEL 04 HOME SITTER YES NO

HOME SITTER

FINISH BOMOVE CURSOR EXIT BOOPERATE IT BY

2. Press the MENU buttons to make each setting.

Press ★ or ➤ to set the times for the TV to come on and go off.
 Press ▼ to move the cursor, then press ★ or ➤ to select VES.
 Press ▼ to move the cursor, then press ★ or ➤ to select VES.
 Press ▼ to move the cursor, then press ★ or ➤ to select VES.

AM: To set the time for the morning. PM: To set the time for the afternoon

Note:

• The HOME SITTER cannot be set for channels set under CHANINEL GUARD. (Refer to page 23.)

TIMER OPERATION

3. Press ▼ to move the cursor to FINISH, then press ▲ or ▼ to select it.

This completes the setting. To leave the menu, press the EXIT button. When you switch off the power, the POWER/ON TIMER lamp he settings you have made are stored and the TV returns to the menu screen.

-CHILD TIMER Turning OFF the TV at a set time, every day

Your TV can be turned off at a set time, every day. No picture will appear for 4 hour after it has turned off, unless a correct LOCK CODE is entered. This timer is useful for controlling the TV viewing time for children.

If there is a power interruption, the CHILD TIMER will be canceled.
 If the clock is not working, the CHILD TIMER cannot be set.

The built-in clock must be set. (Refer to page 24.)

Press the MENU buttons to select

The CHILD TIMER symbol is displayed.

CHILD TIMER

9

CHILD TIMER

2. Press 0 before the symbol

The CHILD TIMER menu is displayed. disappears.

CHILD TIMER YES N OFF TIME 9:00 F

AM: To set the time for the morning PM: To set the time for the afternoon and evening.

3. Press the MENU buttons to make each setting. Press ▲ or ➤ to set the time for the television to go off. Press ▼ to move the cursor to YES, then press ▲ or ➤ select it.

4. Press ▼ to move the cursor to FINISH, then

press ▲ or ▼ to select it.

The settings you have made are stored and the TV returns to the menu screen. This completes the setting. To leave the menu, press the EXIT button. To watch the TV within 4 hour after it has been

turned OFF by CHILD TIMER.

1 Press POWER.

"PLEASE ENTER LOCK CODE BY 10 KEY PAD TO UNLOCK IT." is displayed against a blue background.

2. Press the number keys to enter the LOCK CODE number.

• A statisped from the factory and after a power statistics of the control of the

If the wrong LOCK CODE is entered:
"INVALID LOCK CODE "will be displayed
and the blue background will remain. If the LOCK CODE has been forgotten. Cancel the CHILE TIMER setting

CHILD TIMER DISPLAY NOISE MUTE

TIMER OPERATIONIOTHER FEATURES

Displaying the current TV status

-DISPLAY

You can display the timer settings, current time, and channel number.

1. Press DISPLAY repeatedly.

Note:

• While the clock is not working,
• While the clock is not working,
• CLOCK NOT SET is displayed
instead of the current time.
• Date set as SPECIAL DAY
• The display for a SPECIAL DAY is shown on the second page.

When sound is muted Channel being received or the input mode

Set status of the SLEEP TIMER

Appears when the CHILD TIMER is operating Appears when the HOME SITTER is operating Set status of the DUAL ON TIMER

Turning Non-broadcasting channels

-NOISE MUTE

You can turn the picture noise, which appears for channels not receiving

proadcast signals, into a quiet solid blue screen.

1. Press the MENU buttons to select NOISE MUTE.

ON: To set Noise Mute. OFF: Not to set Noise Mute.

SELECT BY DO OPERATE BY DO EXITBY G

2. Press o or ▶ to select ON or OFF.

This completes the setting.
 To leave the menu, press the EXIT button.

26

The on-screen display disapers and apicture appers on the screen.

OTHER FEATURES

Viewing the Closed Captions

-CLOSED CAPTION

You can watch the closed captions of a TV broadcast, a video tape or a

Condition:

Tune the TV to a program or video source which contains a closed

Press CLOSED CAPTION repeatedly

→ CLOSED CAPTION→ TEXT → OFF

Wote:

The closed caption may not be correctly displayed for cable TV or a video source with copy guard.

A closed caption may not appear properly due to signal reception condition. In this case, press the CLOSED CAPTION button again to make the setting, or returne the Channel.

CLOSED CAPTION:

o view teletext

To view the caption

(If a black background appears while watching video tapes and discs without closed caption, set this function to OFF).

Not to display either one

To set CAPTION mode and TEXT mode

1. Press the MENU buttons to select

The CLOSED CAPTION menu is displayed.

CLOSED CAPTION.

Messages for Special Days

CLOSED CAPTION SPECIAL DAY

OTHER FEATURES

You can set the TV to display a reminder when you switch it on a special day (birthday, anniversary, etc.)

The built-in clock must be set. (Refer to page 24.)

Press the MENU buttons to select SPECIAL DAY.

The SPECIAL DAY list is displayed.



the setting position, then press ▲ or ▶ to select it. 2. Press ▼ or ▲ to move the cursor to

The SPECIAL DAY setting screen is displayed.

ANNVERSARY BIRTHDAY
HOLIDAY CHOICE
ITEM
NAME
NAME
FINISH CANCEL CONOVE CURSOR EXIT SPECIAL DAY 4

Press ▼ or ▲ to move the cursor to the setting item (ANNIVERSARY, HOLIDAY, BIRTHDAY,

CHOICE), then press ■ or ■ to select it.

You can set an item yourself. Move the cursor with \forall or \blacktriangle and press \dashv or \blacktriangleright to select a character. You can set an item up to 11 characters long. When you select CHOICE:

4. Press the MENU buttons to make each setting.

Press

or

to select a character, then press

vointies it.

When one character is finalized, the cursor moves to the next one.

Repeat this process to set a five-character name.

About the CAPTION/TEXT mode:
Press the HELP button in step 1 or 2 of
the setting procedure 2 to show the
explanation screen.

GOMOVE CURSOR EXIT

Press ▼ to move the cursor, then press ◄ or ► to set TEXT mode.
 Press ▼ to move the cursor to FINISH, then press ◄ or ► to select it.
 The settings you have made are stored and the TV returns to the

This completes the setting.
 To leave the menu, press the EXIT button.

Press the MENU buttons to make each setting.

Press

or

to set CAPTION mode.

 2. Press ▲ or ➤ to set the month and day.
 3. Press ▼ to move the cursor to FINISH, then press ▲ or ➤ to select it. The settings you have made are stored and the TV returns to the SPECIAL DAY list.

5. Press ▼ to move the cursor to FINISH, then press ▲ or ▼ to select it.

This completes the setting.
 To leave the menu, press the EXIT button.

To select the closed captions BACKGROUND Press the MENU buttons to select CLOSED CAPTION.

COMOVE CURSOR EXIT ACKGROUND : BLACK CLEA

The CLOSED CAPTION menu is displayed.

Press the MENU buttons to make each setting.

 Press ▼ to move the cursor to BACK GROUND, then press ▲ or ▶ to set BLACK or CLEAR.

Press \blacktriangledown to move the cursor to FINISH, then press \blacktriangleleft or \blacktriangleright to select it. The settings you have made are stored and the TV returns to the

This completes the setting. To leave the menu, press the EXIT button.

CONNECTION DIAGRAM OUTPUT SPEAKERS SURROUND

Listening to the sound through

External Speakers

CONNECTION

-OUTPUT SPEAKERS

Setting the EXT SPKR switch: The output sound differs depending on the switch setting.

CONNECTION

Connecting External Devices

-CONNECTION DIAGRAM

When you want to view from a connected device such as a VCR, change the TV input mode with TV/VIDEO. (Refer to step 2 on page 10.) Before connecting external devices, be sure to disconnect the TV from the AC outlet

External speakersCordless headphones VCR
 S-VHS VCR
 Audio component

deteriorate. If picture noise occurs, turn off devices that you are not using Notes:

Refer to the "Note" on page 6 and to the manuals provided with the other

or move them further apart.
Connect the video signal of S-VHS
VCR to S-VIDEO jack.
VCR to S-VIDEO jack.
Or not connect the action output of any other device to the speakers connected to this TV. It may damage the TV or the other devices.

1. Set the EXT SPKR switch to MAIN.

M N

MAIN No sound SURROUND 1 No sound SURROUND 2 Normal Switch setting

-SURROUND Switching to the Surround Speakers

Surround effect is produced by the rear side left/right external speakers. You can enjoy stereoscopic live sound.

• The effect is produced only from stereo sound. If the sound source is monaural, no sound will come from

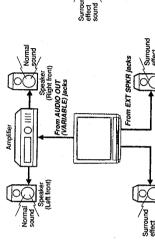
Adjust the balance of sound to the center. (Refer to page 17.)

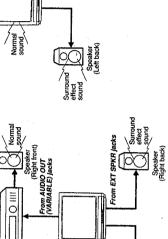
When an audio component is connected

Set the EXT SPKR switch to "SURROUND 1"

Set the EXT SPKR switch to "SURROUND 2"

When an audio component is not





Speaker (Hight back)

• EXT SPKR switch 9 AV COMPU LINK lacks (Refer to page32)

JVC AV Compu Link capable VCR (Set the remote code to "B") or JVC AV Compu Link capable S-VHS VCR (Set the remote code to "A")

AV COMPU LINK connection

CONNECTION

-AV COMPU LINK

This TV set is capable of using an AV COMPU LINK. If the TV set is connected to a JVC AV Compu Link-capable VCR and/or hi-fi receiver (or amplifier), automatic switching functions are available.

insert a video cassette (with its safety tabs removed) such as a prerecorded If the TV set is connected to a JVC AV Compu Link-capable VCR, simply video into the VCR, the TV set turns on automatically and the video playback is displayed on the screen, without any manual switching necessary.

If the TV set is connected via a JVC AV Compu Link-capable hi-fi receiver (or amplifier) to a JVC AV Compu Link-capable VCR, you can do the following:

- Insert a video cassette (with its safety tabs removed) into the VCR. Both the TV set and receiver (or amplifier) turn on automatically and the video playback is displayed on the screen.
- Change the input source selector of the receiver (or amplifier) to the video input mode. The TV set's input source selector will also be set to the video input mode [VIDEO-1 or VIDEO-2] automatically.
- turned on (or off) automatically. For example, if the input source selector of the receiver (or amplifier) is set to "VCR1" and the receiver (or amplifier) is Turn on (or off) the receiver (or amplifier). Both the TV set and VCR are also turned on, the TV set and VCR connected to VCR1 are turned on.

In addition to connecting video and audio signal cables, connect the AV Compu Link cable to the AV COMPU LINK jacks (VCR ONLY or RECEIVER/AMP jacks) to transmit the control signals via the AV Compu Link cable.

Wotes:

If the TVC ROMUY Lack of the TV set I in the VCR, connect the AV Compu Link cable to the VCR ROMUY Lack of the TV set I in the VCR is connected to the RECEIVERAMP jack, this function is no operable. If the TV set is connected to the montion cupture fan AV Compu Link-capable set in the VCR is connected to the montion cupture for amplifier), and the VCR is connected to the Compu Link cable to the RECEIVET AMP jack. If the reselver for amplifier) is connected to the VCR COMPU LINK jacks with formation cannot be operated.

When a VCR or reselver (or amplifier) is connected to the VCR COMPU LINK jacks set the remote confer unit as follows:

I fan SVHS VCR's connected to the VCR SVR VCR's remote code to 'A'.

I a VMS VCR's connected to the VCR SVR VCR's connected to the VCR SVR VCR's connected to the VCR SVR VCR's connected to the VCR's remote code to 'A'.

I works very CR's remote code to 'A'.

I works very CR's remote code to 'A'.

VCR's remote code to 'A'.

VCR's remote code to 'A'.

A's remote code to 'A'.

A's remote code to 'A'.

A's remote code to 'A'.

For proper AV Compu Link operation, use a cable with mono male mini plugs (3.5mm).

Note:

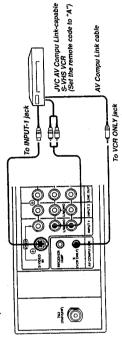
If the AV Compu Link cable is connected to the TV set's REC'EIVER/
AMP lack, the TV set's remote control sensor does not detect the signals from remote control lacet the remote control's signals at the receiver (or amplifier). Signals the receiver (or amplifier). Signals from the emote control's signals at the receiver (or amplifier), Signals from the emote control's signals at the receiver (or amplifier), signals from the emote comput Link cable to the TV set. Comput Link cable to the TV set.

AV Compu Link cable (optional) Video cable (If connected to an S-VHS VCR, connect the S-Video cable) AV Compu Link cable To INPUT-1 jack (If the S-VHS VCR connected with S-Video cable) To RECEIVER/ AMP Jack To INPUT-2 Jack 0 0 0 0 0 SPUT: NPUT2 LINE OU

Connecting an AV COMPU LINK-Capable S-VHS VCR

CONNECTION AV COMPULINK

Rear panel

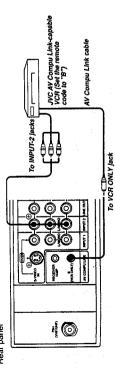


Connecting an AV COMPU LINK-Capable Receiver (or Amplifier)

Rear panel

Connecting an AV COMPU LINK-Capable VCR

Rear panel



CONNECTION TV/CATV SELECTER

REALISTIC

MAGANAVOX

RICOH

035 038 081

MARANTZ

8

AIWA AIKO

AKAI

Manufacturer's Code

Manufacturer CA UNIFIER

Manufacturer

Manufacturer's Code

Manufacturer

Manufacturer's code table (VCR)

CONNECTION

operation the CATV converter and VCR Using the TV's remote control unit to

-TV/CATV SELECTER

The remote control unit can be used to operate a CATV converter and VCR.

 Enter the code of the CATV converter and VCR manufacturer into the remote control unit.

Set the TV/CATV selecter to CATV

CATV converter-controllable buttons:
POWER, CHANNEL/HYPER SCAN (-/+), Number keys, 100+, RETURN
Depending on the type of CATV encoder, the 100+, RETURN button will
work as the ENTER button.

VCR-controllable buttons: REW, PLAY, FF, REC, STOP, PAUSE, VCR POWER, VCR CHANNEL

Setting the manufacturer's code

1. Press the POWER (or VCR POWER) button and the RETURN button at the same time.

Use the number keys to input the manufacturer's code, then press RETURN.

Manufacturer's code table (CATV converter)

This completes the setting.
 Test the remote control operation.

To replace the batterles:
The set manufacturer's code will be put in memory for the specific time. When you replace the batterles, do this within one minute. (Refer to page 8.) Notes:

- Upon factory shipment, the remote control unit has been set to operate a JVC VCB and manufacturer's code "000" CATV converter. To set the CATY converter: In Step 1, press the POWER button and the RETURN button at the same time The VCR can be operated regardless of the TV/CATV setting.
Depending on the VCR or CATV converter, a few buttons may not work Allows the remote control unit to operate the CATV converter.

To set the VCR: In Step 1, press the VCR POWER button and the RETURN button at the

TEKNIKA

TOSHIBA JNITECH

037 168

PILOT

038 075

HARMAN/KARDON

HITACHI JENSEN

GOLDSTAR

GE GO VIDEO

000 041

TATUNG

ANASONIC

PENNEY

8

FUNA

TEAC

8

TANDY

048 062

OPTONICA

VIDEO CONCEPTS

PIONEER UNIFIED

PIONEER

/IDEOSONIC

YAMAHA ZENITH

058 067 020 039 046 035 096 035 042 065 105 149 202

JVC KENWOOD LLOID

LOGIK

Manufacturer's Code

Manufacturer

Manufacturer's Code

Manufacturer

MOVIE TIME

Manufacturer

SC

153 207

153 53

CITIZEN

207

ANTRONIX

021 307

WARDS

RCA

Some models cannot be set.

240

SEARS

MITSUBISH

180

CARVER

043

000 072

MULTITECH

CURTIS MATHES

DYNATECH EMERSON

SAMSUNG

SANSUI

MEMOREX

BROKSONIC CANON

In the manufacturer's code table, if a manufacturer has multiple manufacturer's codes, set and try each one until you find the one that works

You can make this setting even if you do not know the code number. Some models may be set by following the method shown below even if they do not correspond to the manufacturer's code table.

f you do not know the manufacturer's code

015 040 096 155

STARGATE

SYLVANIA

TANDY

PHILIPS

TEXSCAN TOSHIBA TOSHIBA

RCA REALISTIC

PHILIPS ECG PIONEER PULSAR

902 53

ECTRONICS

COMPONENTS

To set the VCR:
Press the VCR POWER button and the
RETURN button at the same time. To set the CATV converter: Press the POWER button and the RETURN button at the same time.

1. Press the POWER (or VCR POWER) button and the RETURN button at the same time. Press the POWER (or VCR POWER) button. Repeat Step 2 until the CATV converter (or

3. Press RETURN button.

VCR) power comes on.

VIEWSTAR

040 144

SAMSUNG

5

JASCO

000 054

ZENITH

JERROLD

SIGNAL SIGNATURE SL MARX

JERROLD SCIENTIFIC ATLANTA A STARCOM

056 153 207

88 200

JNITED CABLE

005

REGENCY

011 276

GENERAL INSTRUMENT

153 207

This completes the setting.
 Test the remote control operation.

34

MEMOREX

TROUBLESHOOTING

Troubleshooting

If the power cord plug is disconnected from the AC outlet, or the TV antenna is causing problems, you may think there is a problem with the TV itself; be sure to check the following items before calling for service.

Important:
• Review all the instructions written in this user guide.

■ GENERAL

Problem .	Cause	Action
No power supply	Is the power cord plug disconnected?	Insert the plug into AC outlet. (Refer to page 7.)
No picture or sound	Is the antenna disconnected?	Check the antenna connections. (Refer to
	is the antenna facing in the correct direction?	page 7.1 Position the antenna in the correct direction.
	is the input mode (TV, VIDEO-1,2) set to an incorrect position?	Press TV/VIDEO to engage the correct mode. (Refer to page 10.)
	is the broadcast mode set properly?	Set the correct tuner mode with the MENU button. (Refer to page 10.)
	Is the CHILD TIMER operating?	Enter the LOCK CODE. (Refer to page
	Is the TV station the problem?	sol, which another channel if there are no problems with another channel, the TV station may be the problem.
Inoperable remote control	Are batteries exhausted?	Repalce the batteries (Refer to page 8.)
	Are the batteries' +/- polarity placed correctly?	Re-install the batteries correctly. (Refer to page 8.)
	Is the remote control too far from the TV?	Operate the remote control within approx. 23 ft (7 meters) of the TV.
	Are there any obstructions between the remote control and TV?	Remove any obstructions between the remote control and TV.
	Is the TV/CATV selector set properly?	When operating the TV, set the TV/CATV selector to TV.
	The TV does not receive remote control commands for some reason.	Press POWER on the TV to turn it off, then turn it on again.
The channel cannot be	Have the channels been set?	Preset the channels. (Refer to page 9.)
selected.	Is the selected channel guarded?	Press the remote control number keys to select the channel, then enter the LOCK CODE. (Refer to page 23.)
	Is the TV/CATV selector set properly?	When operating the TV, set the TV/CATV selector to TV.
The power shuts off automatically	Is the SLEEP TIMER set?	Press POWER to turn on the TV again. (Refer to page 24.)
	Is the CHILD TIMER set?	Press POWER to turn on the TV, then enter the LOCK CODE. (Refer to page 26.)
The TV clock is incorrect or the clock has stopped.	Was there a power interruption?	Set the clock correctly. (Refer to page 24.)
The timer operation does not work.	Was there a power interruption?	If there is a power interruption, the timer operation will be canceled. Set it again. Also check that the clock is correct. (Refer to pages 24 to 26.)

■ PICTURE

TROUBLESHOOTING
Troubleshooting

Problem	Cause	Action
Poor colors	Are the COLOR and TINT controls adjusted incorrectly?	Adjust the COLOR and TINT controls. (Refer to page 16.)
	Has the THEATER STATUS mode been set?	Cancel the THEATER STATUS. (Refer to page 16.)
	Is it a black and white program?	Change the channel and watch a color program.
Lines or streaks in the picture (interference)	Could there be interference from a personal computer, TV, VCR, audio component, jamming by a radio station, etc.?	Move the components apart until the interference is eliminated. Move the antenna to a different position or direction.
Spotted picture (crosstalk)	Could there be interference from a hair dryer, electric cleaner, neon sign, high tension wire, automobile, motorcycle, etc.?	Move the antenna away from the source of interference. Replace the antenna cable with a coaxial cable, which is less prone to interference.
Double pictures (ghost)	Could the direct signals from a TV broadcast station be affected by reflected signals from mountains or buildings, etc.?	Move the antenna to a different position, height or direction. Replace with an antenna having better directional characteristics.
Snowy picture (image noise)	Is the external antenna cut or disconnected?	Check the antenna connection. (Refer to page 7.)
	Is the antenna turned the wrong direction due to strong wind, etc.?	Position the antenna correctly
-	Is the antenna damaged?	Replace or repair the antenna.
The screen turns blue.	Is a non-broadcasting channel selected?	Select a broadcast channel.
	Is Noise Mute on?	Turn off Noise Mute. (Refer to page 27.)
When a video tape is played, a blue background appears first.	Is Noise Mute on?	Turn off Noise Mute. (Refer to page 27.)
The second picture does not appear on the screen.	Is the VCR or playback device connected to the TV?	Connect the VCR or playback device to the TV and start playback. (Refer to page 30.)
TV screen has a black square covering 80% of the screen.	Is the Closed Caption Text Mode on?	Press CLOSED CAPTION button to turn OFF Text Mode. (Refer to page 28.)

■ SOUND

Problem	Causes	Action
Bilingual/stereo broadcasts cannot be heard.	Is the MTS mode set correctly?	Sel it to STEREO or SAP mode. (Refer to page 17.)
No sound is output from the TV's speakers.	is the EXT SPKR switch set to "MAIN" Set the EXT SPKR switch to or "SURROUND 1"? (Refer to pa	Set the EXT SPKR switch to "SURROUND 2". (Refer to page 31.)

The following are normal occurrences and are not the result of TV malfunctions:

• When you touch the CRT (Cathode Ray Tube: Picture tube) surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; if does not affect the human body.

• Your TV may entil a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.

• When as all bright image (of a white dress, for example) appears on the screen, the image may be colored. This problem occurs in all CRTs, and as the bright image disappears, such coloration also disappears.

TROUBLESHOOTING

Specifications

Model	AV-27BP5	AV-31BP5	AV-35BP5	AV-31BM5
Type		COLOR TELEVISION	EVISION	
Receiving		NTSC system, BTSC system (Multichannel Sound)	rm (Multichannel Sound)	
Received	VHF 2 to 10	 UHF 14 to 69; Sub Mid, Mid, Super, Hyper at (180-channel frequency synthesizer system) 	VHF 2 to 13, UHF 14 to 69; Sub Mid, Mid, Super, Hyper and Ultra bands (180-channel frequency synthesizer system)	fra bands
Power supply		AC 120V, 60Hz	zH09,	
Power consumption	MAX. 140W, AVG. 100W 1.9 A	MAX. 160W, AVG. 104W 2.3 A	MAX. 185W, AVG. 123W 2.57 A	MAX, 160W, AVG. 104W 2.3 A
Screen size	27*/69 cm measured diagonally, Full Square	31"/79 cm measured diagonally, Full Square	35*/89 cm measured diagonally, Full Square	31"/79 cm measured diagonally, Full Square
Audio output		1	5W + 5W	
Speakers	2"x4-3/4	2"x4-3/4"/5x12cm oblong type x 2	3-3/16"x4-3/4"/8x12cm oval x 2	2"x4-3/4"/5x12cm oblong type x 2
Antenna terminal		75-ohms (VHF/UHF) terminal (F-type connector)	inal (F-type connector)	
External input acks	Vide	Video: 1Vp-p, 75-ohms Audio: 500mV rms (~4dBs), high impedance	gh impedance	
S-Video input jack	ÿ Ö	1Vp-p positive, 75-ohms (negative of 0.286Vp-p (burst signal), 75-ohms	1Vp-p positive, 75-ohms (negative sync provided) 0.286Vp-p (burst signal), 75-ohms	
Variable audio output jacks		More than 0 to 1550mV rms (+6dBs), low impedance (400Hz when modulated 100%)	mV rms (+6dBs), hen modulated 100%)	
ine output acks	Vide	Video: 1Vp-p, 75-ohms Audio: 500mV rms (-4dBs), lo	Video: 1Vp-p, 75-ohms Audio: 500mV rms (-4dBs), low impedance (400Hz when modulated100%)	en modulated100%)
AV COMPU LINK acks:		3.5 mm ø mini jack x 2	ni jack x 2	
PIP/MAIN AUDIO OUT jack		3.5 mm ø stereo mini jack	eo mini jack	
Speaker output jacks		Impedance 6 to 8 ohms	to 8 ohms	
External dimensions WxHxD)	External dimensions 25'-7/8"x29-1/8"x20-1/2" 30-1/4"x26-1/8"x21-5/8" (WxHxD) 65.5 x 58.6 x 52.0 cm 76.8 x 66.3 x 54.8 cm		36-1/8"x29-1/2"x23-7/8" 91.9 x 74.8 x 60.5 cm	30-1/4"x26-1/8"x21-5/8" 76.8 x 66.3 x 54.8 cm
Mass	76.3 lbs/37.6 kg	117.3 lbs/53.3 kg	183.6 lbs/83.3 kg	117.1 lbs/53.2 kg
Accessories	Rem	Remote control unit (RM-C723) x1 AAA (R03) batteries x2) x1 x2	Remote control unit (RM-C722) x1 AAA (R03) batteries x2

Design and specifications subject to change without notice.

			-
CABLE TV CHANNEL CONVERSION CHART	Inaddition to normal TV reception from an antenna for VHF (Channels 2 to 13) and UHF (Channels 14 to 69), your TV set is equipped to receive non-	scrambed cable 1V charnels. Sub-Mid band (A. 8. A-4 to A-1). Mid band (A to 9), Super band (J to W), Hyper band (W+1 to W+28) and Uttar band (W+29 to W+84) can be received by using the	Change coloration se chouse to the following

Reception of channel A-5 (195" of the TV set's on-screen CABLE channel numbers) is not recommended for your TV set.

01 86 97 88 99 14 15 16 17 18 19 20 21 22 23 24 25 25 22 25. 85 86 87 89. 85. W 52. W 5 4.11 We-12 We-12 We-13 We-15 We-15 We-16 We-16 We-20 W | W-10 | W-31 | W-32 | W-10 | W-41 | W-42 | W-43 | W-44 | W-44 | W-45 | W-45 | W-46 | W-46 | W-47 | W-48 |

Regular cable channel designations
 Your TV set's corresponding on-screen CABLE channel numbers

HOW TO LOCATE YOUR JVC SERVICE CENTER FOR CANADA, SEE SEPARATE SHEETS FOR WARRANTY/GARATIE AND JVC AUTHORIZED SERVICE CENTERS IN CANADA.

TOLL FREE: 1-800-537-5722

In the event that repair is necessary, or for the address nearest your location, please refer to the factory service center list below or within the Continental United States, call 1-800-537-5722 for your authorized servicer. Remember to retain your Bill of Sale for Warranty Service. In order to receive the most satisfaction from your purchase, read the instruction booklet before operating the unit

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JVC SERVICE & ENGINEERING - COMPANY OF AMERICA

DIVISION OF US JVC CORP.

FACTORY SERVICE CENTER LOCATIONS

Aurora, IL 60504-8149 705 Enterprise Street

107 Little Falls Road Fairfield, NJ 07004-2105

(201) 808-9279

1500 Lakes Parkway Lawrenceville, GA 30243-5357 (404) 339-2522 10700 Hammerly Suite 110 Houston, TX 77043

Honolulu, HA 96819-2040

(808) 833-5828

2969 Mapunapuna Place

(708) 851-7855

890 Dubuque Avenue South San Francisco, CA

94080-1804

(713) 935-9331 Cypress, CA 90630-0024 5665 Corporate Avenue (714) 229-8011

Ashland, MA 0172-2377 230 Ellot Street (508) 881-5923

Miami Lakes, FL 33016-1512 (305) 362-6252 14505 Commerce Way

(415) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is the key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products. JVC SERVICE & ENGINEERING COMPANY OF AMERICA DIVISION OF US JVC CORP. NATIONAL HEADQUARTERS Fairfield, NJ 07004-2105 107 Little Falls Road

— If you ship the product...

size and strength. Enclose, with the unit, a letter stating the problem or symptom that exists and also a copy of the receipt or bill of sale you received when you purchased your JVC unit. Print your home return address on the outside and the

Pack your JVC unit in the original carton or one of equivalent

Don't service it yourself.

Refer servicing to qualified service personnel. To prevent electrical shock, do not open the cabinet. No user serviceable parts inside. CAUTION

ACCESSORIES

inside of the carton. Send to the appropriate JVC Factory

Service Center as listed above

To purchase accessories for your JVC product, you may contact your local JVC Dealer. Or from the 48 Continental United States call toll free: 800-882-2345.

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SPECIFICATIONS

AV-27BP5

Item	Content			
Dimensions (W×H×D)	25-7/8" × 23-1/8" × 20-1/2" / 65.5cm × 58.6cm × 52.0cm			
Weight	76.3lbs / 37.6kg			
TV System and Color, Sound System				
TV RF System	CCIR(M)			
Color, Sound System	NTSC,BTSC (Multichannel Sound)			
TV Receiving Channels and Frequency				
VL Band	(02~06) 54MHz~88MHz			
VH Band	(07~13) 174MHz~216MHz			
UHF Band	(14~69) 470MHz~806MHz			
CATV Receiving Channels and Frequency				
Low Band	(02~06,) by (02~06)			
High Band	$(07\sim13)$ by $(07\sim13)$			
Mid Band	(A~I) by (14~22)			
Super Band	(1~1M) by (23~26)			
Hyper Band	(54MHz~804MHz) (W+1~W+28) by (37~64)			
ULTRA Band	$(W + 29 \sim W + 84)$ by $(65 \sim 94,100 \sim 125)$			
Sub Mid Band	(A-8, A-4~A-1) by (01, 96~99)			
TV / CATV Total Channel	180 Channels			
Intermediate Frequency				
Video IF Carrier	45.75MHz			
Sound IF Carrier	41.25MHz (4.5MHz)			
Color Sub Carrier	3.58MHz			
Antenna Input Impedance	75Ω (VHF / UHF) Terminal, F-Type Connector			
Power Input	120V AC, 60Hz			
Power Consumption	140W (max.),100W (avg.) [US]			
Input current	1.9A [CA]			
Picture Tube	27"(69cm) measured diagonally, Full Square			
Viewable Picture Size (W×H)	21-5/16"×16" / 54.1cm ×40.6cm			
High Voltage	31.0kV ± 1.3kV (at zero beam current)			
Speaker	2"×4-3/4" (5×12cm) Oval Type, ×2			
Speaker Output Terminal	6~8Ω			
Audio Power Output	5W + 5W			
Input (1,2)	Video : 1 Vp-p 75Ω (RCA pin jack)			
	Audio: 500 mV rms (-4dBs), High Impedance (RCA pin jack)			
Line Output	Video : 1 Vp-p 75Ω (RCA pin jack)			
	Audio: 500 mV rms (-4dBs)			
	Low Impedance (400Hz when modulated 100%) (RCA pin jack)			
S-Video Input	Y:1 Vp-p positive (negative sync provided, when terminated with 75Ω)			
	C:0.286 Vp-p (burst signal, when terminated with 75 Ω)			
Variable Audio Output	More than 0~1550mV rms (+6dBs)			
	Low Impedance (400Hz when modulated 100%) (RCA pin jack)			
AV Compulink Input	Audio: 3.5mm mini jack			
	VCR : 3.5mm mini jack			
PIP/MAIN Audio out put	3.5mm Stereo mini jack			
Tube	1			
IC	32(In TV), 1(In Remocon)			
Transistor	117(In TV), 2(In Remocon)			
Remote Control Unit	RM-C723			

Design & specification subject to change without notice.

AV-31BP5 / AV-31BM5

AV-35BP5

Content	Content		
30-1/4" × 26-1/8" × 21-5/8" / 76.8cm × 66.3cm × 54.8cm	36-1/8"×29-1/2"×23-7/8" / 91.9cm×74.8cm×60.5cm		
117.3lbs / 53.3kg [AV-31BP5] , 117.1lbs / 53.2kg [AV-31BM5]	183.6lbs / 83.3kg		
CCIR(M)	CCIR(M)		
NTSC,BTSC (Multichannel Sound)	NTSC,BTSC (Multichannel Sound)		
(02~06) 54MHz~88MHz	(02~06) 54MHz~88MHz		
(07~13) 174MHz~216MHz	(07~13) 174MHz~216MHz		
(14~69) 470MHz~806MHz	(14~69) 470MHz~806MHz		
(02~06,) by (02~06)	(02~06,) by (02~06)		
$(07 \sim 13)$ by $(07 \sim 13)$	(07~13) by (07~13)		
$(A \sim I)$ by $(14 \sim 22)$	(A~I) by (14~22)		
$(J \sim W)$ by $(23 \sim 36)$ $(54MHz \sim 804MHz)$	(J~W) by (23~36) (54MHz~804MHz)	}	
$(W + 1 \sim W + 28)$ by $(37 \sim 64)$	$(W + 1 \sim W + 28)$ by $(37 \sim 64)$,	
$(W + 29 \sim W + 84)$ by $(65 \sim 94,100 \sim 125)$	$(W + 29 \sim W + 84)$ by $(65 \sim 94,100 \sim 125)$		
(A-8, A-4~A-1) by (01, 96~99)	(A-8, A-4~A-1) by (01, 96~99)		
180 Channels	1,80 Channels		
45.75MHz	45.75MHz		
41.25MHz (4.5MHz)	41.25MHz (4.5MHz)		
3.58MHz	3.58MHz		
75Ω (VHF / UHF) Terminal, F-Type Connector	75Ω (VHF / UHF) Terminal, F-Type Connector		
120V AC, 60Hz	120V AC, 60Hz		
160W (max.),104W (avg.) [US]	185W (max.),123W (avg.) [US]		
2.3A [CA]	2.57A [CA]		
31"(79cm) measured diagonally, Full Square	35"(89cm) measured diagonally, Full Square		
24-13/16" × 18-5/8" / 63.0cm × 47.2cm	28"×21" / 71.1cm ×53.3cm		
31.0kV ± 1.3kV (at zero beam current)	33.0kV ± 1.0kV (at zero beam current)		
2"×4-3/4" (5×12cm) Oval Type, ×2	3-3/16"×4-3/4" (8×12cm) Oval Type, ×2		
6~8Ω	6~8Ω		
5W + 5W	5W + 5W		
Video: 1 Vp-p 75Ω (RCA pin jack)	Video: 1 Vp-p 75Ω (RCA pin jack)		
Audio: 500 mV rms (-4dBs), High Impedance (RCA pin jack)	Audio: 500 mV rms (-4dBs), High Impedance (RCA pin jack)		
Video: 1 Vp-p 75Ω (RCA pin jack)	Video : 1 Vp-p 75Ω (RCA pin jack)		
Audio: 500 mV rms (-4dBs)	Audio: 500 mV rms (-4dBs)		
Low Impedance (400Hz when modulated 100%) (RCA pin jack)	Low Impedance (400Hz when modulated 100%) (RCA pin ja	ack)	
Y:1 Vp-p positive (negative sync provided, when terminated with 75Ω)	Y:1 Vp-p positive (negative sync provided, when terminated with 75Ω)	
C:0.286 Vp-p (burst signal, when terminated with 75Ω)	C:0.286 Vp-p (burst signal, when terminated with 75Ω)		
More than 0~1550mV rms (+6dBs)	More than 0~1550mV rms (+6dBs)		
Low Impedance (400Hz when modulated 100%) (RCA pin jack)	Low Impedance (400Hz when modulated 100%) (RCA pin jack)		
Audio: 3.5mm mini jack	Audio: 3.5mm mini jack		
VCR : 3.5mm mini jack	VCR : 3.5mm mini jack		
3.5mm Stereo mini jack (EXCEPT AV-31BM5)	3.5mm Stereo mini jack		
1 32(In TV), 1(In Remocon) [AV-31BP5]	34(In TV), 1(In Remocon)		
24(In TV), 1(In Remocon) [AV-31BM5]			
119(In TV), 2(In Remocon) [AV-31BP5]	150(In TV), 2(In Remocon)		
84(In TV), 2(In Remocon) [AV-31BM5]			
RM-C723 [AV-31BP5] , RM-C722 [AV-31BM5]	RM-C723		

SAFETY PRECAUTIONS

- The design of this product contains special hardware, many circuits
 and components specially for safety purposes. For continued protection, no changes should be made to the original design unless
 authorized in writing by the manufacturer. Replacement parts must
 be identical to those used in the original circuits. Service should be
 performed by qualified personnel only.
- Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- 3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by () on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- 4. Use isolation transformer when hot chassis.

The chassis and any sub-chassis contrained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point white performing any service on some products when the HOT chassis is exposed.

 Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.

Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE () side GND, the ISO-LATED (NEUTRAL) () side GND and EARTH () side GND. Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time.

If above note will not be kept, a fuse or any parts will be broken.

- If any repair has been made to the chassis, it is recommended that the B₁ setting should be checked or adjusted (See ADJUSTMENT OF B₁ POWER SUPPLY).
- 7. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- 8. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a $10k\Omega$ 2W resistor to the anode button.
- 9. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

10. Isolation Check

(Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs,metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.

(.... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

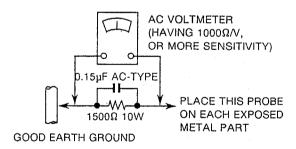
This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 Ω per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).



11. High voltage hold down circuit check.

After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.

See item "How to check the high voltage hold down circuit".

ONLY CANADA

This mark shows a fast operating fuse; the letters indicated below show the rating.



FEATURES

- New chassis design enables use of a main board with simplified circuitry.
- · Comb filter improved picture quality.
- Super COMMAND At remote control with multi-color onscreen "Menu" display, allowing interactive, total TV operation.
- Provided with miniature tuner (TV / CATV)
- Full-square CRT (cathode ray tube) reproduces fine textured picture in every detail.
- PLL synthesizer system TV / CATV totaling 180 channels.
- AV COMPU LINK terminals allow simultaneous mode switching of the TV, connected receiver (or amplifier) and/or VCR.

- Closed-caption broadcasts can be viewed.
- The AV input terminal, sound input, external speaker output terminal, and audio output terminal allow for a variety of connections to another AV equipment.
- S-VIDEO input terminal for taking best advantage of Super VHS
- Variable audio output terminal.
- Built-in MTS & SURROUND circuit with A / V system.
- Built-in PIP system (Except : AV-31BM5).
- An auto demonstration function demonstrates the features of this model.

DIFFERENCE OF MODELS

MODEL	PIP MODULE	VM CIRCUIT	DBF. CIRCUIT
AV-27BP5(US/CA)	YES	NON	NON
AV-31BM5(US/CA)	NON	NON	NON
AV-31BP5(US/CA)	YES	NON	NON
AV-35BP5(US/CA)	YES	YES	YES

SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE FOR AV-27/31BP5 & AV-31BM5

REMOVING THE REAR COVER

- Unplug the power supply cord and remove the screws marked
 as shown in Fig. A(AV-27BP5) & Fig. B(AV-31BP5/BM5).
- * When reinstalling the rear cover, carefully push it inward after inserting the main board into the rear cover groove.

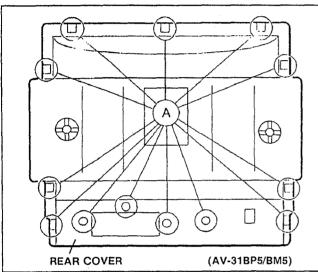
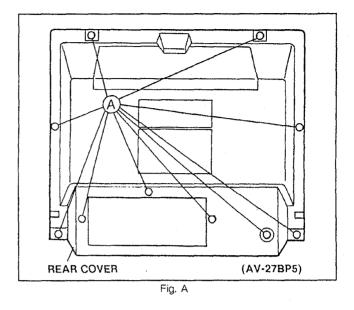


Fig. B

REMOVING THE CHASSIS

- * After removing the rear cover.
- 1. As shown in Fig. C slide and pull out the CHASSIS BASE in the direction of arrow marked (A).
 - (If necessary, take off the wire clamp and connectors, etc.)



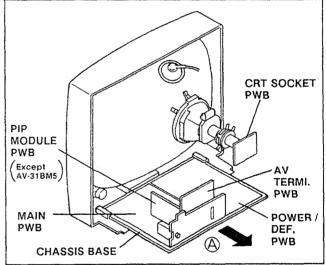


Fig. C

REMOVING THE AV TERMINAL BOARD & AV TERMINAL PWB

- * After removing the rear cover.
- 1. Remove the five screws marked (a) and two screws marked (a) as shown in Fig. D.
- 2. While wideing the two claws marked ©, remove the AV TERMINAL BOARD.
- 3. Raise the AV TERMI. PWB in the arrow direction marked
 as shown in Fig. D.
- The connector (CN003) will then be free and the AV TERMINAL PWB can be removed.

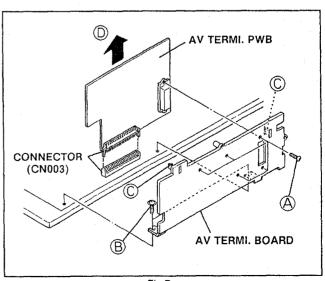


Fig.D

REMOVING THE PIP PWB (Except AV-31BM5)

- * After removing the rear cover.
- 1. While widening the three claws marked (a) as shown in Fig. E.
- 2. Raise the PIP PWB in the arrow direction marked ® as shown in Fig. E.
- The connector will then be free and the PIP PWB can be removed.

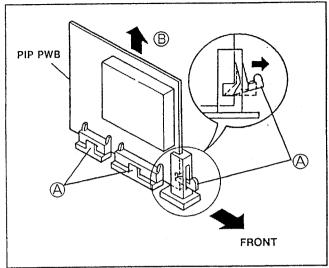


Fig.E

REMOVING THE FRONT CONTROL PWB

- ^ After removing the rear cover & the chassis.
- 1. While widening the two claws marked (A) as shown in Fig. F.
- 2. As show in Fig. F slide and pull out the FRONT CONTROL PWB in the direction of arrow marked ^(a).
- * If necessary, take off the wire clamp and connectors, etc.

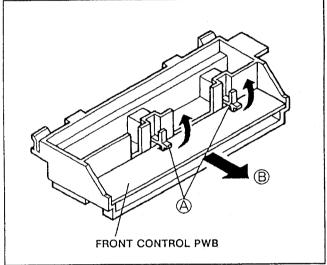


Fig. F

AN EXAMPLE OF PLACEMENT FOR SERVICE

- 1. As shown in Fig. G, place the unit for service.
- 2. When the chassis, sub PWB Ass'y etc, have been removed, the wire clamp, connector, earth wire etc, which were also detached together must be reattached to their original places in order to make preparations for service.
- While taking care that there is no short circuit with the conductor section etc., place the unit.Insulate the unit with a cardbord, or the like, if necessary.
- After making sure that there is no short circuit and other obstructive matters with the unit turn on electricity for service.
- * When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB Ass'y and the POWER / DEF PWB Ass'y.

WIRE CLAMPING AND CABLE TIES

- 1. Be sure to clamp the wire.
- Never remove the cable tie used for tying the wires together.Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

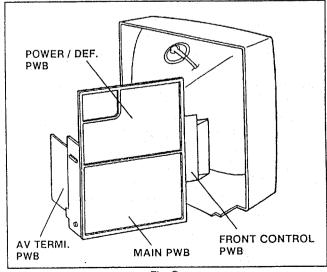


Fig. G

DISASSEMBLY PROCEDURE FOR AV-35BP5

REMOVING THE REAR COVER

- 1. Unplug the power supply cord and remove the fifteen screws marked (a) as shown in Fig. A.
- * When reinstalling the rear cover, carefully push it inward after inserting the main board into the rear cover groove.

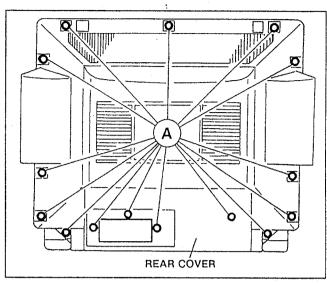


Fig. A

REMOVING THE CHASSIS

- As shown in Fig B, slide and pull out the chassis in the direction of arrow. (If necessary, take off the wire clamp and connectors..., etc.)

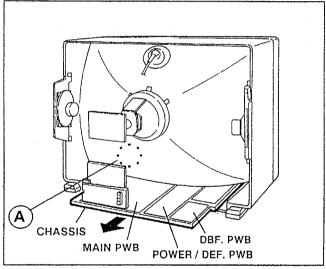


Fig. B

REMOVING THE AV TERMINAL BOARD & AV TERMINAL PWB

- * After removing the rear cover.
- 1. Remove the five screws marked (a) and two screws marked (a) as shown in Fig. C.
- 2. While wideing the two claws marked ©, remove the AV TERMINAL BOARD.
- 3. Raise the AV TERMI. PWB in the arrow direction marked
 as shown in Fig. C.
- The connector (CN003) will then be free and the AV TERMINAL PWB can be removed.

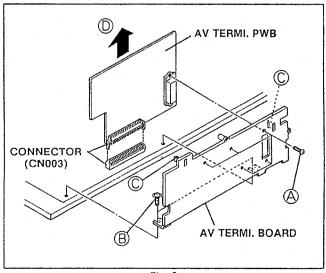


Fig. C

REMOVING THE PIP PWB

- * After removing the rear cover.
- 1. While widening the three claws marked (A) as shown in Fig. D.
- 2. Raise the PIP PWB in the arrow direction marked (19) as shown in Fig. D.
- The connector will then be free and the PIP PWB can be removed.

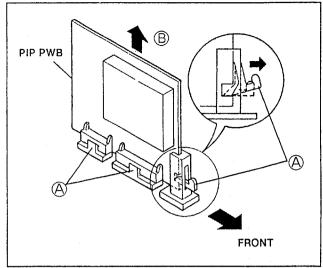


Fig.D

REMOVING THE SPEAKER GRILL

- * After removing the rear cover.
- 1. Remove the two screws marked (A) as shown in Fig. E.
- 2. While widening the claw marked (B), remove the speaker grill as shown in Fig. E.
- Use same procedure when removing the other hand speaker grill.

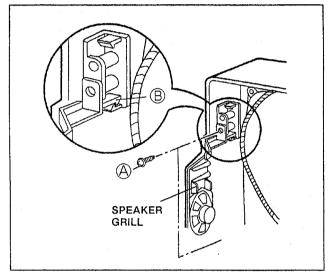


Fig. E

AN EXAMPLE OF PLACEMENT FOR SERVICE

- 1. As shown in Fig. F, place the unit for service.
- When the chassis, sub PWB Ass'y etc, have been removed, the wire clamp, connector, earth wire etc, which were also detached together must be reattached to their original places in order to make preparations for service.
- While taking care that there is no short circuit with the conductor section etc., place the unit.Insulate the unit with a cardbord, or the like, if necessary.
- 4. After making sure that there is no short circuit and other obstructive matters with the unit turn on electricity for service.
- * When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB Ass'y and the POWER / DEF PWB Ass'y.

WIRE CLAMPING AND CABLE TIES

- 1. Be sure to clamp the wire.
- Never remove the cable tie used for tying the wires together.Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

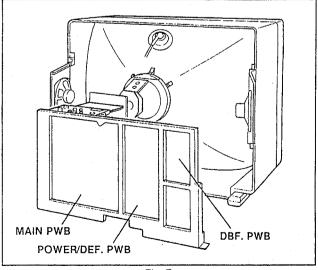


Fig. F

REMOVING THE CRT.

- Relacement of the CRT should be performed by two or more persons.
- After removed the rear cover, chassis and sp grill ass'y etc...
- Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth. (shown in Fig. G)
- While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig. H.
- 3. Remove four nuts marked by arrows with a box type screw driver as shown in Fig. H.
- Since the cabinet will drop when nuts have been removed, be sure to support the cabinet with hands.
- 4. After four nuts have been removed, put the cabinet slowly on cloth (At this time, be careful so as not to damage the front surface of the cabinet) as shown in Fig. I.
- The CRT should be assembled according to the opposite sequence of its dismounting steps.
- The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

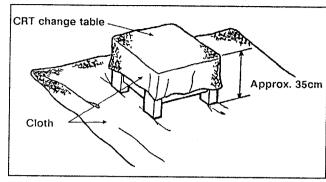


Fig. G

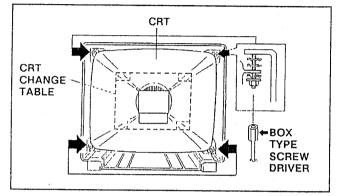


Fig. H

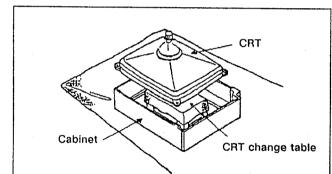


Fig. I

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig. J.
 Wipe around the anode button with crean and dry cloth. (Fig.J)
 Coat silicon grease on the section around the anode button.
 At this time, take care so that any silicon grease does not stick to the anode button.(Fig.K)
- ★ Silicon grease product No.: KS 650N

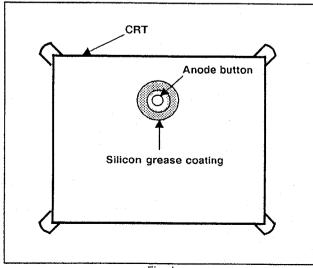


Fig.

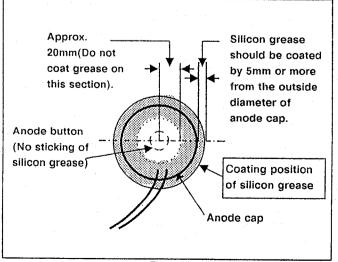


Fig. K

MEMORY IC REPLACEMENT

MEMORY IC

 This model uses a memory IC (EEPROM). The memory IC stores data needed for correct operation of the video and deflection circuits. If the IC is replaced, be sure the data (initial values) are entered in the new IC.

DATA WRITE-IN

- If the TV video, audio and other settings are to be the same as prior to replacing the memory IC, perform the following steps
- Before replacing the IC, refer to TABLE 1 (user settings) and to the extent possible make a note of the data for each item.
- In the SERVICE MODE, to the extent possible make a note of the setting value data for each item.
 - PICTURE SERVICE MODE

No.1-No.29

• SOUND SERVICE MODE

No.1-No.12

• PIP SERVICE MODE

No.1-No.40

• OTHERS MODE

No.1-No.29

If the items are difficult to read due to sync disturbance or other problem, set the input mode to where a video input signal is absent.

- Switch off the power and disconnect the power cord from the AC outlet.
- 4. Replace the memory IC.
- Connect the power cord to the AC outlet and switch on the power.
- 6. Use the remote controller and set the user setting values of TABLE 1 to those noted in above step 1.
- 7. Set the input mode to where a video input signal is absent.
- 8. Set the SERVICE ADJUSTMENT MODE (See page 2-16) .
- 9. In sequence, set the service mode setting values to those noted in above step 2. Where the setting values could not be noted, as required, refer to the reference setting values and fine adjust while observing the picture.

MEMORY IC LOCATION

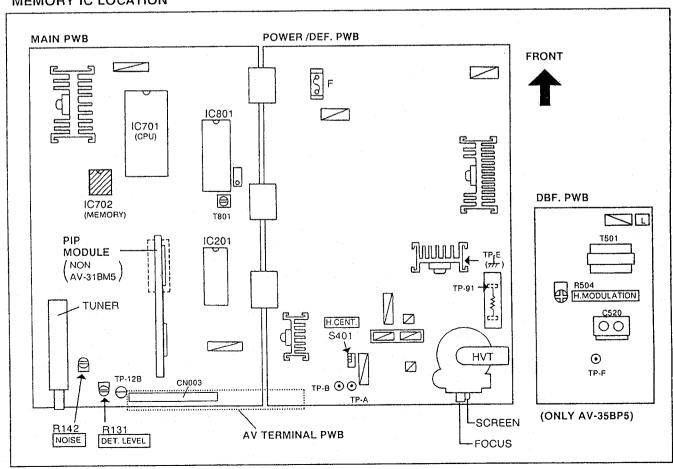


TABLE 1 (User setting)

ITEM	FACTORY SETTING	ITEM	FACTORY SETTING
Use remote controller keys			
POWER	OFF	DISPLAY	OFF
CHANNEL	2	AV STATUS	BRIGHT ROOM
VOLUME	Approx. 20	PIP SOURCE	TV 7
TV / VIDEO	TV	PIP POSITION	Lower left (Except AV-318M5)
CAPTION	OFF (CC1-T1-BLACK)	PIP SIZE	1/9 (large) _
2. Sattings from manu			
2. Settings from menu	CENTER	SPECIAL DAY	(no setting)
TINT	CENTER	SET CATEGORY PREVIEW	Network only set, others
COLOR	MAX.	JET ONTEGONT I NEVIEW	not set
PICTURE			PREVIEW1 02)
BRIGHT	CENTER		PREVIEW2 04 > Air mode
DETAIL	CENTER		PREVIEWS 07
VNR	OFF (AV-35BP5 only)	VOLID EAVODITES	Setting not required
NOTCH	OFF	YOUR FAVORITES	1
NOISE MUTE	OFF	SET LOCK CODE	Setting not required Receive memory set channel
SET AV STATUS	RESET (all center)	CHANNEL SUMMARY	mode A
BASS	CENTER		
TREBLE	CENTER		Stations 02 — CBS 04 — NBC
BALANCE	CENTER		07 — ABC
MTS	STEREO	ALLTO TUNED OF TUE	OTHERS
SET CLOCK	NON SETTING	AUTO TUNER SET UP	AIR
CHILD TIMER	NO	TUNER MODE	
	[9:00 PM]	MUTE LEVEL	0 CAPTION CC1
HOME SITTER	NO	CLOSED CAPTION	
	ON 7:00 PM		TEXT T1 BACKGROUND BLACK
•	OFF 10:00 PM		
	CHANNEL 02		Factory setting : off
DUAL ON TIMER	Both 1 and 2 NO	AUTO DEMO	Catting and required
	ON 7:00 AM CHANNEL 02	AUTO DEMO	Setting not required
	COLIVIAINEE OF 7		
3. Others			
SELF CHECK	All clear		<u></u>

ITEM	BRIGHT ROOM	CHOICE	RESET	THEATER
TINT	CENTER	CENTER	CENTER	CENTER
COLOR	CENTER	CENTER	CENTER	CENTER
PICTURE	MAX	CENTER	CENTER	CENTER
BRIGHT	CENTER	CENTER	CENTER	CENTER
DETAIL	CENTER	CENTER	CENTER	CENTER
VNR (AV-35BP5)	OFF	OFF	OFF	OFF
NOTCH	OFF	OFF	OFF	OFF
LIVE EFFEX	OFF	OFF	OFF	OFF
VM (AV-35BP5)	ON	ON	ON .	OFF

AV STATUS REFERENCE SETTING POSITION

REPLACEMENT OF CHIP COMPONENT

CAUTIONS

- 1. Avoid heating for more than 3 seconds.
- 2. Do not rub the electrodes and the resist parts of the pattern.
- 3. When removing a chip part, melt the solder adequately.
- 4. Do not reuse a chip part after removing it.

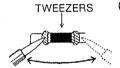
■SOLDERING IRON

- 1. Use a high insulation soldering iron with a thin pointed end of it.
- 2. A 30w soldering iron is recommended for easily removing parts.

EREPLACEMENT STEPS

1. How to remove Chip parts

- Resistors, capacitors, etc
- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



(2) Shift with tweezers and remove the chip part.



- •Transistors, diodes, variable resistors, etc
- (1) Apply extra solder to each lead.



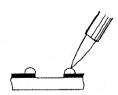
(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



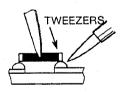
Note: After removing the part, remove remaining solder from the pattern.

2. How to install Chip parts

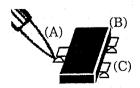
- •Resistors, capacitors, etc
- (1) Apply solder to the pattern as indicated in the figure.

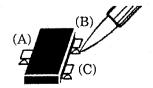


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.



- •Transistors, diodes, variable resistors, etc
- Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead A as indicated in the figure.
- (4) Then solder leads B and C.





SERVICE ADJUSTMENTS

BEFORE STARTING ADJUSTMENT

- The remote controller is used for many adjustments of this model. However, some are performed in the conventional manner by adjusting circuit board parts. The adjustment procedures for this model are described in the following order.
 - B1 VOLTAGE CHECK Page 2-14
 - SCREEN VOLTAGE ADJUSTMENT Page 2-14
 - ADJUSTMENTS WITH REMOTE CONTROL UNIT
 - Page 2
 - ADJUSTMENT WITH DISCRETE PARTS
 - Page 2-27
- Allow the set and measuring equipment ample time to warm up (at least 30 minutes).

- 3. Check proper AC 120V power supply input.
- 4. Use care not to disturb VRs and other parts not mentioned in the adjustment items.
- Unless otherwise mentioned in the adjustment steps, use the remote controller to preset the following functions to the indicated positions.
 - THEATER / AV STATUS = BRIGHT ROOM MODE (PICTURE only Max., all others to center)
 (VNR. NOTCH, LIVE EFFEX = OFF)
 - · Audio controls : all to center
- 6. Refer to the adjustment parts locations on page 2-15.

MEASURING EQUIPMENT & FIXTURES

- DC voltmeter or digital voltmeter
- Oscilloscope
- Test pattern generator (NTSC)
 More precise adjustments are enabled if resolution, pedestal and greyscale pattern outputs are available.
- TV audio multiplex signal generator
- · Using remote control unit

RM-C722: AV-31BM5

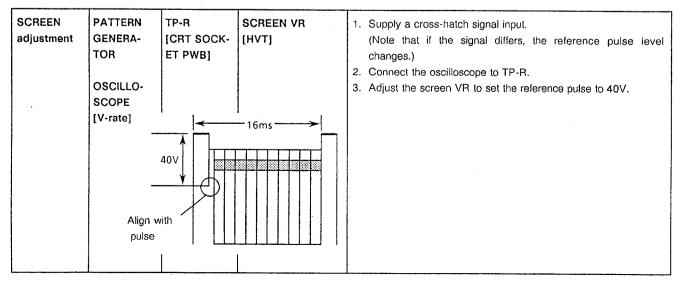
RM-C723: AV-27BP5/AV-31BP5/AV-35BP5

ADJUSTMENT PROCEDURES

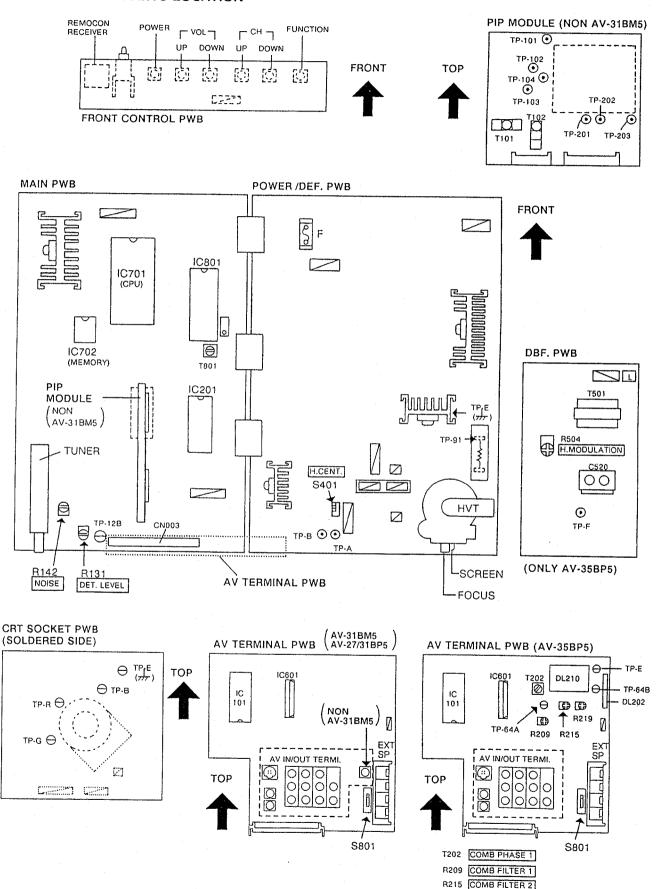
■ B1 VOLTAGE CHECK

Item	Measuring instrument	Test point	Adjustment part	Description
B1 voltage check	PATTERN GENERA- TOR DC voltmeter	TP-91 TP-E(,,,)		 Supply a color bar signal input. Connect the DC voltmeter to TP-91 & TP-E(,,,,). Confirm that the voltage is DC135.5V ± 1.5V.

■ SCREEN VOLTAGE ADJUSTMENT



ADJUSTMENT PARTS LOCATION



R219 COMB PHASE2

ADJUSTMENT WITH REMOTE CONTROL UNIT

SERVICE ADJUSTMENT MODE ENTRY

- Press the MENU UP / DOWN (or L / R) keys (Fig. A) to produce the screen indicated in Fig. 1, then select SET CLOCK.
- 2. Press the MENU L / R keys to produce the screen indicated in Fig. 2.
- 3. Press the MENU UP / DOWN and L / R keys to set the TIME (be sure to set to 3 : 21 AM) and DATE (any date is adequate), then produce the START CLOCK mode (Fig. 2) .
- Press the MENU L / R keys to produce a blinking "THANK YOU" (Fig. 3).
- While "THANK YOU" is blinking, press the MUTE key, then immediately press the MENU UP / DOWN keys to produce the Fig. 5 SERVICE MODE screen with blinking message.
- While the message is blinking, press the MENU UP / DOWN keys to produce the Fig. 5 SERVICE MODE MENU screen.
- Select the mode to be adjusted from the Fig. 5 screen with the MENU UP / DOWN keys.
- 8. When the MENU UP / DOWN keys are pressed, the Fig. 6 screen is produced and location (A) blinks.
- When the MENU UP / DOWN keys are pressed according to the blinking (A) location, the Fig. 7 SERVICE ADJUSTMENT ITEMS are produced.
- 10.At this screen, adjust each SERVICE ADJUSTMENT ITEM.

REMOTE CONTROLLER KEY LOCATIONS

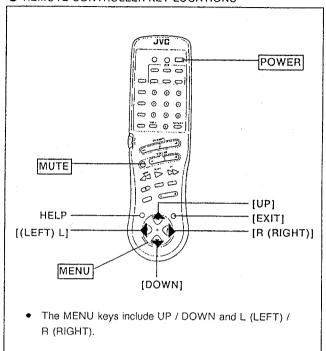


Fig. A

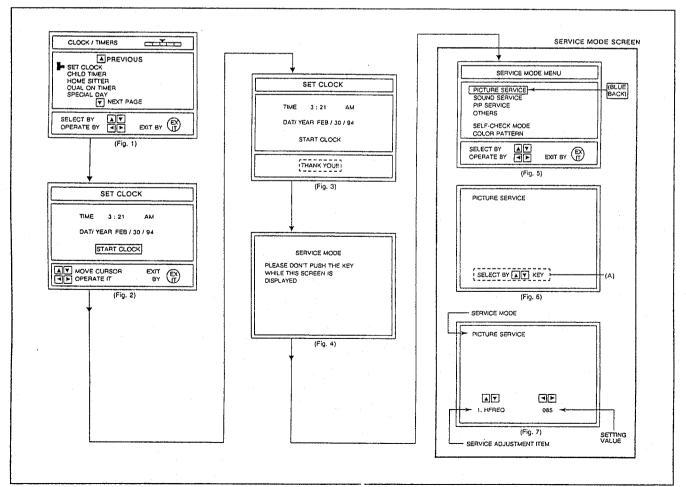
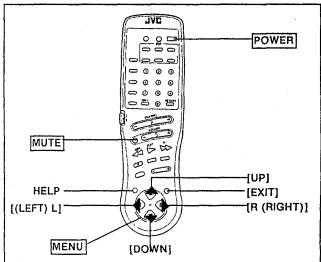


Fig. B

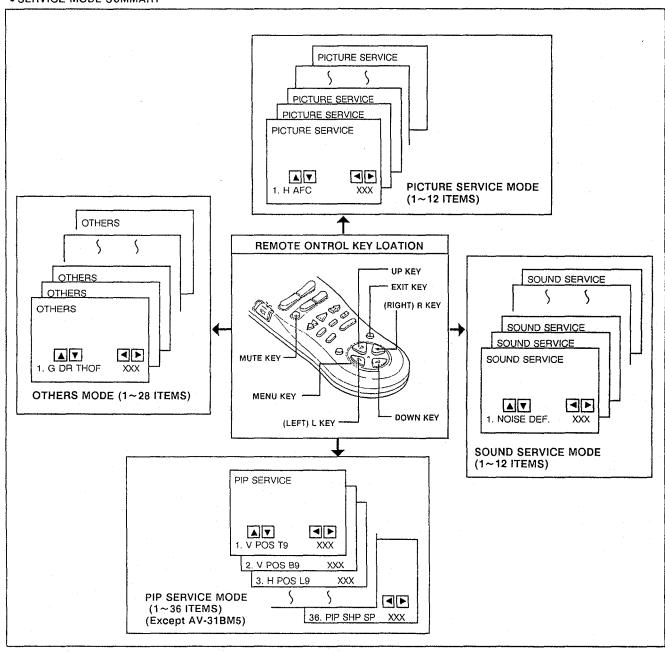
SERVICE ADJUSTMENT PROCEDURE AND RELEASE

- 1. Produce the service adjustment mode (Fig. 6) .
- 2. Press the MENU UP / DOWN keys to select the SERVICE ITEM (Fig. 7).
- 3. Set the SETTING VALUE with the MENU L / R keys. (After adjusting, release the key to store the adjustment.)
- After setting, press the EXIT key twice to release the SERVICE MODE MENU.

REMOTE CONTROLLER KEY LOCATIONS



• SERVICE MODE SUMMARY



SERVICE MODE REFERENCE SETTING VALUE

- Ordinary adjustments are performed by entering the service mode and using the remote controller to fine adjust according to the reference setting values indicated in the table. Where these cannot be fine adjusted, perform the adjustments as described from Page 2-21.
- The reference setting values are approximations and should not be considered absolutely required values.

• PICTURE SERVICE MODE

		Refe	rence Setting V	alue
Adjustment items	Variable range	AV-27BP5	AV-31BP5 AV-31BM5	AV-35BP5
1. H AFC	0 ~ +3	0	0	0
2. H FREQ	0 ~ +127	43	52	50
3. V FREQ	0 ~ +127	13	14	14
4. V SHIFT	0 ~ +31	15	15	15
5. V SIZE	0 ~ +63	30	. 45	35
6. VLIN	0 ~ +15	11	8	9
7. H PHASE	0 ~ +15	5	5	4
8. H SIZE	0 ~ +31	19	25	21
9. PIN AMP	0 ~ +31	16	13	19
10. CORNER PIN	0 ~ +7	4	4	2
11. PIN PHASE	0 ~ +15	6	6	5
12. V S CORRE	0 ~ +15	12	8	5
13. G DRIVE	0 ~ +31	8	10	8
14. B DRIVE	0 ~ +31	8	7	6
15. DYNAMIC WH	0 ~ +1	1	1	1
16. G CUTOFF	0 ~ +15	7	6	3
17. B CUTOFF	0 ~ +15	5	7	1
18. FSC TRAP	0 ~ +63	37	35	31
19. PICTURE	0 ~ +127	91	95	104
20. TINT	0 ~ +127	70	71	78
21. COLOR	0 ~ +127	57	55	55
22. BRIGHT	0 ~ +127	77	78	81
23. DETAIL	0 ~ +15	8	8	7
24. V RANGE	0 ~ +1	0	0	0
25. V WDTH REG	0 ~ +7	0	0	0
26. REF P POS	0 ~ +3	2	2	2
27. RGB / BACK	0 ~ +3	0	0	0
28. ABL MODE	0 ~ +1	1	1	1
29. RGB PICT	0 ~ +127	84	88	100

SOUND SERVICE

1. NOISE	0 ~ +1	1	1	1
2. INPUT LVL	0 ~ +63	19	19	19
3. FH MONITOR	0 ~ +1	0	. 0	0
4. STEREO VCO	0 ~ +63	17	17	17
5. PILOT CANC	0 ~ +1	0	0	0
6. FILTER	.0 ~ +63	22	22	22
7. LOW F SEPA	0 ~ +63	30	30	30
8. HIGHF SEPA	0 ~ +63	25	. 25	25
9. 5FH MONITR	0 ~ +1	0	0	0
10. SAP VCO	0 ~ +63	· 38	38	38
11. MUTE	0 ~ +1	1	1	1
12. SURROUND	0 ~ +15	2	2	2

• PIP SERVICE MODE (Excepte AV-31BM5)

PIP SERVICE MODE (Excepte AV-0		Refe	rence Setting V	alue
Adjustment items	Variable range	AV-27BP5	AV-31BP5	AV-35BP5
1. V POS T 9	0 ~ +255	18	18	18
2. V POS B 9	0 ~ +255	78	78	78
3. HPOSL9	0 ~ +255	41	41	42
4. HPOSR9	0 ~ +255	125	125	126
5. V POS T 16	0 ~ +255	18	18	18
6. V POS B 16	0 ~ +255	87	87	87
7. H POS L 16	0 ~ +255	53	54	54
8. H POS R 16	0 ~ +255	175	175	175
9. V POS CAT	0 ~ +255	11	11	11
10. HPOS L CAT	0 ~ +255	28	28	30
11. HPOS R CAT	0 ~ +255	127	127	129
12. V POS SPL	0 ~ +255	39	39	34
13. HPOS L SPL	0 ~ +255	24	24	26
14. HPOS R SPL	0 ~ +255	78	78	78
15. Y/C DELAY	0 ~ +3	1	1	. 1
16. FRAME WIDT	0 ~ +3	2	2	2
17. CLAMP POS	0 ~ +3	1	1	1
18. H FILTER	0 ~ +1	О	О	o
19. V FILTER	0 ~ +1	0	0	0
20. ASPECT 9	0 ~ +31	20	20	20
21. ASPECT 16	0 ~ +31	26	26	26
22. ASPECT CAT	0 ~ +31	19	19	19
23. ASPECT SPL	0 ~ +31	14	14	14
24. SUB H POS	0 ~ +3	0	0	0
25. SUB V POS	0 ~ +3	0	0	0
26. H AREA	0 ~ +3	0	0	0
27. V AREA	0 ~ +3	2	2	2
28. PIP1 TINT	0 ~ +255	183	170	165
29. PIP1 COLOR	0 ~ +255	222	198	174
30. PIP1 CONT	0 ~ +255	174	195	186
31. PIP2 TINT	0 ~ +255	185	185	167
32. PIP2 COLOR	0 ~ +255	198	198	160
33. PIP2 CONT	0 ~ +255	144	144	190
34. PIP SHP 9	0 ~ +255	170	170	170
35. PIP SHP 16	0 ~ +255	170	170	170
36. PIP SHP SP	0 ~ +255	170	170	170
37. PIP1 G DRV	0 ~ +255	140	138	150
38. PIP1 B DRV	0 ~ +255	144	138	145
39. PIP2 G DRV	0 ~ +255	188	188	119
40. PIP2 B DRV	0 ~ +255	165	165	123

AV-27/31/35BP5 AV-31BM5

OTHERS MODE

		Refe	rence Setting V	alue
Adjustment items	Variable range	AV-27BP5	AV-31BP5 AV-31BM5	AV-35BP5
1. G DR TH OF	− 127 ~ + 127	-6	-2	-3
2. B DR TH OF	$-127 \sim +127$	<u> </u>	-20	- 15
3. G CO TH OF	$-127 \sim +127$	-3	+2	0
4. B CO TH OF	− 127 ~ + 127	-8	- 11	0
5. PICT TH OF	−127 ~ +127	-20	-20	- 14
6. TINT TH OF	−127 ~ +127	0	-1	-2
7. COL TH OF	−127 ~ +127	-2	-2	-3
8. BRT TH OF	−127 ~ +127	+5	+4	+4
9. DETL TH OF	$-127 \sim +127$	0	0	0
10. BASS TH OF	−1 27 ~ +127	0	0	0
11. TRBL TH OF	−127 ~ +127	0	0	0
12. TH DYN WH	0 ~ +1	0	0	0
13. G DR BR OF	−127 ~ +127	0	0	. 0
14. B DR BR OF	−127 ~ +127	0	0	0
15. G CO BR OF	$-127 \sim +127$	0	0	0
16. B CO BR OF	$-127 \sim +127$	0	0.	0
17. PICT BR OF	$-127 \sim +127$	0	0	0
18. TINT BR OF	$-127 \sim +127$	0	0	0
19. COL BR OF	$-127 \sim +127$	0	0	0
20. BRT BR OF	$-127 \sim +127$	0	0	0
21. DETL BR OF	$-127 \sim +127$	0	0	.0
22. BASS BR OF	−127 ~ +127	0	0	0
23. TRBL BR OF	$-127 \sim +127$	0	0	0
24. PMUTE M OF	$-127 \sim +127$	- 7 0	- 70	- 70
25. VSIZE OFST	-127 ~ +127	+5	+5	+5
26. COMB SW	0 ~ +1	0	0	0
27. TIME DEBUG	0 ~ +1	0	0	0
28. HRC DEBUG	0 ~ +1	0	0	0
29. IRC DEBUG	0 ~ +1	0	0	0

PICTURE SERVICE MODE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
3.58 MHz CHROMA TRAP adjustment	OSCILLO- SCOPE [H-rate] PATTERN GENERA- TOR	Q1353 (emitter)	26. COMB SW (OTHERS MODE) 18. FSC TRAP Chroma Element	 AV-35BP5 : Perform after comb filter adjustment. AV-27/31BP5 & AV-31BM5 : Supply a composite signal to the S-IN terminal Y pin only and set the OTHERS MODE 26. COMB SWITCH value to 1. Supply a color bar signal input. Connect the oscilloscope to Q1353 emitter. Use the remote controller to set the OTHERS MODE 26. COMB SWITCH value to 1. With the remote controller, adjust 18. FSC TRAP to set the chroma element to minimum. With the remote controller, return the OTHERS MODE 26. COMB SWITCH value to 0.
V. SYNC adjustment	OSCILLO- SCOPE [H-rate]	IC1201 ® pin IC1201 ® pin (EARTH) [MAIN PWB]	3. V. FREQ.	 Select video input. (Do not connect anything to the video input.) Connect the oscilloscope to IC1201 pin 31. (Connect the ground to pin 36.) With the remote controller, adjust 3. V. FREQ to set the period to 18.2 ms (55 ± 0.8Hz).
H. SYNC adjustment	PATTERN GENERA- TOR		1. H. AFC 2. H. FREQ	 Receive a broadcast. With the remote controller, set 1. H. AFC to 3. With the remote controller, set 2. H. FREQ to 2 to obtain a still picture. With the remote controller, return 1. H. AFC to 0.

V. LIN. V. POSI. adjustment 92% screen size	92% (scre		4. V. SHIFT 5. V. SIZE 6. V. LIN V. CENTER SW (S1401) [POWER/DEF.PWB]	 Supply a crosshatch signal input. With the remote controller, confirm the 4. V. SHIFT value is 15 (this value is fixed at 15 and must not be moved). With the remote controller, adjust 6. V. LIN so that the picture is symmetrical top to bottom. Align the vertical center with the V. CENTER switch of the Main PWB. With the remote controller, adjust 5. V. SIZE to set the vertical amplitude so that 92% of the overall crosshatch is displayed on the screen. As required, repeat above steps 2~5.
screen	92% (scre	een size)	100%	 With the remote controller, adjust 5. V. SIZE to set the vertical amplitude so that 92% of the overall crosshatch is displayed on the screen.
92%	Picture si	ize (100%)	Picture size	
H. SIZE, GI	ATTERN BENERA- OR		7. H. PHASE 8. H. SIZE 9. PIN AMP 10. CORNER PIN 11. PIN PHASE	 Supply a crosshatch signal input. With the remote controller, adjust 9. PIN AMP, 10. CORNER PIN, and 11. PIN PHASE so that vertical lines at both edges of the picture are straight. With the remote controller, adjust 7. H. PHASE and 8. H. SIZE so that 92% of the overall crosshatch is displayed on the screen. As required, repeat above steps 2 and 3. [NOTE] AV-27BP5: Adjust only 7. H. PHASE. Do not adjust 8. H. SIZE, 9. PIN AMP, 10. CORNER PIN, or 11. PIN
				PHASE.
BALANCE G	PATTERN GENERA- TOR		15. DYNAMIC WH 16. G CUT OFF 17. B CUT OFF	 With the remote controller, set 15. DYNAMIC WH is 0. With the remote controller, supply a greyscale signal (luminance only stairstep waveform) input. With the remote controller, adjust 16. G CUTOFF and 17. B CUTOFF to set the white balance to where the greyscale signal to nearly black (dark direction). Return 15. DYNAMIC WH to 1.

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (High Light) adjustment	PATTERN GENERA- TOR		13. G DRIVE 14. B DRIVE	 Supply a completely white signal input. Set 15. DYNAMIC WH is 0. Adjust 13. G DRIVE and 14. B DRIVE for an overall white picture. If low light is deviated, readjust 16. G CUTOFF and 17. B CUTOFF. Repeat above steps 3 and 4 to correctly adjust low light and high light.
				6. Return 15. DYNAMIC WH to 1.
SUB BRIGHT adjustment			22. BRIGHT	Receive an ordinary broadcast. Adjust 22. BRIGHT for optimum picture (avoid setting too bright) .
CONTRAST adjustment (PICTURE)	PATTERN GENERA- TOR	TP-R	19. PICTURE	Receive an ordinary broadcast. Adjust 19. PICTURE for optimum picture
SUB COLOR & SUB TINT adjustment	PATTERN GENERA- TOR		20. TINT 21. COLOR (OTHERS MODE)	Supply a color bar signal input. Adjust 20. TINT and 21. COLOR for optimum picture.

SOUND SERVICE MODE ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL adjustment			2. INPUT LVL	Confirm 2. INPUT LVL is at the reference value.
MTS ST VCO adjustment			3. FH MONITOR 4. STEREO VCO	Confirm 4. STEREO VCO is at the standard adjustment value. Correctly receive a stereo broadcast and confirm absence of abnormal sound or other problems. If not normal, fine adjust the adjustment value.
MTS FILTER adjustment			5. PILOT CANC 6. DBX FILTER	Confirm 5. PILOT CANC and 6. FILTER are at the standard adjustment values. Correctly receive a stereo broadcast and confirm absence of abnormal sound or other problems. If not normal, fine adjust the adjustment values.
MTS SEPA. adjustment	OSCILLO- SCOPE		7. LOW F SEPA 8. HIGH F SEPA	 Set the TV multichannel sound signal generator for generating stereo signal and output signal of about 300Hz from the left channel. Connect an oscilloscope to the "L" output and obtain a clear view of 1- cycle portion of 300Hz waveforms. Change connection of the oscilloscope to the "R" output and expand the voltage axis. Adjust the 7. LOW F SEPA and minimize the 3KHz crosstalk portion. Next set the signal for 3 kHz and in the same manner, adjust 8. HIGH F SEPA.
	/	1 cycle		Minimum
L-C	Channel signal	waveform	<u> </u>	R-Channel crosstalk portion
MTS SAP VCO adjustment		,	9. 5FH MONITR 10. SAP VCO	Confirm 10. SAP VCO is at the reference value. Confirm an SAP broadcast can be received normally. If not normal, fine adjust the adjustment value.

PIP SERVICE MODE ADJUSTMENT (Except AV-31BM5)

2 1/9 SIZE (X2) 30 8 3 1/9 SIZE (Y1) 40 8 4 1/9 SIZE (Y2) 40 8 5 1/16 SIZE (X1) 30 8 6 1/16 SIZE (X2) 30 8 7 1/16 SIZE (Y1) 40 8	
DISPLAY POSI. adjustment Simple, advanced 1/9, 1/16 sizes Sizes 2. V POS B9 3. H POS L9 4. H POS R9 5. V POS T16 6. V POS B16 7. H POS L16 8. H POS R16 1 1/9 SIZE (X1) 2 1/9 SIZE (X2) 3 0 8 4 1/9 SIZE (X2) 3 0 8 5 1/16 SIZE (X2) 3 0 8 6 1/16 SIZE (X2) 3 0 8 7 1/16 SIZE (X2) 3 0 8 8 1/16 SIZE (Y1) 4 0 8 8 1/16 SIZE (Y2) 4 0 8	
## SETTING POST ## SETTING POS	
8. H POS R16 MODE NO. PIP SIZE (APROX.)mm	OSITION
2 1/9 SIZE (X2) 30 8 3 1/9 SIZE (Y1) 40 8 4 1/9 SIZE (Y2) 40 8 5 1/16 SIZE (X1) 30 8 6 1/16 SIZE (X2) 30 8 7 1/16 SIZE (Y1) 40 8 8 1/16 SIZE (Y2) 40 8	%
3 1/9 SIZE (Y1) 40 8 4 1/9 SIZE (Y2) 40 8 5 1/16 SIZE (X1) 30 8 6 1/16 SIZE (X2) 30 8 7 1/16 SIZE (Y1) 40 8 8 1/16 SIZE (Y2) 40 8	80 ± 3%
4 1/9 SIZE (Y2) 40 8 5 1/16 SIZE (X1) 30 8 6 1/16 SIZE (X2) 30 8 7 1/16 SIZE (Y1) 40 8 8 1/16 SIZE (Y2) 40 8	80 ± 3%
5 1/16 SIZE (X1) 30 8 6 1/16 SIZE (X2) 30 8 7 1/16 SIZE (Y1) 40 8 8 1/16 SIZE (Y2) 40 8	80 ± 3%
6 1/16 SIZE (X2) 30 8 7 1/16 SIZE (Y1) 40 8 8 1/16 SIZE (Y2) 40 8	80 ± 3%
7 1/16 SIZE (Y1) 40 8 8 1/16 SIZE (Y2) 40 8	80 ± 3%
X1	80 ± 3%
X1	80 ± 3%
1/16	80 ± 3%
1/9 1/16 X2 Y1 Y2	

Item	Measuring instrument	Test point	Adjustment part	Description
PIP. FRAM WIDTH adjustment			16. FRAME WIDT	Supply a signal (any video acceptable) input. Adjust 16. FRAME WIDTH so that PIP picture portions A and B are equal (A = B) as indicated in the figure.
	(A)		(B)	
PIP CONTRAST adjustment			30. PIP1 CONT. 33. PIP2 CONT.	 Receive a broadcast. Display the PIP picture. Adjust 30. PIP1 CONT for the same optimum picture as the main picture. Use the remote controller SWAP key to interchange the main and PIP pictures. Adjust 33. PIP2 CONT for optimum picture.
PIP TINT & COLOR adjustment			28. PIP1 TINT 29. PIP1 COLOR 31. PIP2 TINT 32. PIP2 COLOR	 Receive a broadcast. Display the PIP picture. Adjust 28. PIP1 TINT and 29. PIP COLOR for the same optimum picture as the main picture. Use the remote controller SWAP key to interchange the main and PIP pictures. Adjust 31. PIP2 TINT and 32. PIP2 COLOR for optimum picture.

■ ADJUSTMENT WITH DISCRETE PARTS

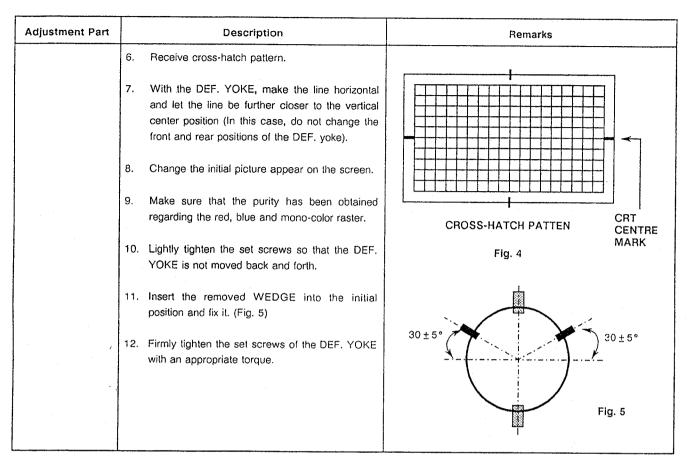
ltem	Measuring instrument	Test point	Adjustment part	Description
V.DET. LEVEL adjustment	PATTERN GENERA- TOR OSCILLO- SCOPE [H-rate]	TP-12	DET. LEVEL VR (R131)	 Supply a half color bar (including 100% white) signal input. Connect an oscilloscope to TP-12. Adjust the detector level with the DET LEVEL VR for 1 Vp-p from sync tip to white peak.
				1.0Vp-p
COMB. FILTER adjustment [AV-35BP5 ONLY]	PATTERN GENERA- TOR OSCILLO- SCOPE [H-rate]	TP-64A TP-64B	COMB. FILTER 1 VR (R209) COMB. PHASE 1 TRANSF. (T202) COMB. FILTER 2 VR (R215) COMB. PHASE 2 VR (R219)	 [AV-35BP5 only] Supply a color bar signal input. Connect an oscilloscope to TP-64A. Adjust the COMB FILTER 1 VR and COMB PHASE 1 transformer to minimize the color signal component. Connect an oscilloscope to TP-64B. Adjust the COMB FILTER 2 VR and COMB PHASE 2 VR to minimize the color signal component. Repeat above steps 2~5. Since the delay line has a temperature characteristic, allow ample time for warm up before adjusting.
	TP-64A		min	TP-64B minimum

Item	Measuring instrument	Test point	Adjustment part	Description
NOISE adjustment			NOISE VR (R113) [MAIN PWB]	1. Receive an ordinary broadcast. 2. Turn the noise VR to where noise appears in the picture. 3. Carefully turn the NOISE VR in the direction where noise disappears and stop at the position NOISE extinguishes. 4. Confirm absence of abnormality on other channels.
DBF MODU- LATION VR adjustment [ONLY AV-358	OSCILLO- SCOPE BP5]	TP - F TP-E(→,)	H. MODULATION VR (R504) [DBF. PWB]	 Receive a black - and - white signal. Connect an oscilloscope to the TP - F and TP - E (). Adjust the H. MODULATION VR so that the value (A) becomes 500V ± 20Vp-p.
				(A)
FOCUS adjustment	PATTERN GENERA- TOR		FOCUS VR [Within HVT]	Perform after DBF. MODULATION adjustment. Adjust the focus VR to obtain clear pictures. Check that pictures have been adjusted to optimum appearance in both center and peripheral areas of the screen.

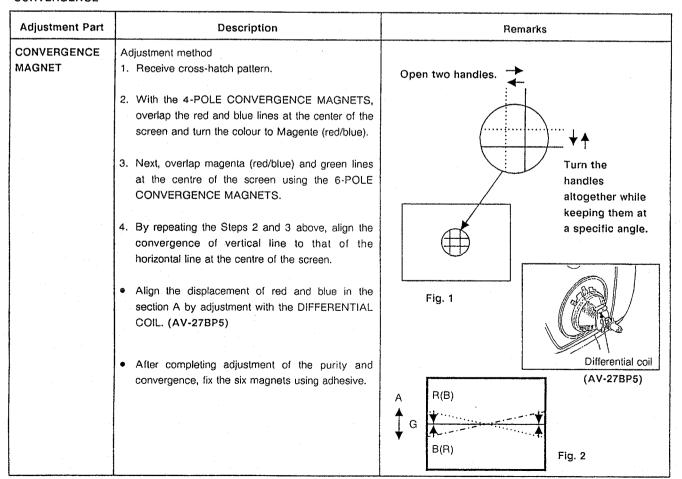
PURITY, CONVERGENCE

ADJUSTMENT OF PURITY

Adjustment Part	Description	Remarks
WEDGE	Prior to starting adjustment, perform the following items:	
SCREEN VR	Remove a wedge inserted into the DEF. YOKE. At this time, clean the portion from which the wedge has been removed.	4 POLES PURITY MAGNET CONVERGENCE \(\lambda \)
DEF. YOKE	Peel adhesive used to fix six magnets with a tip of screw driver so that the magnets can be turned freely.	MAGNETS
	 Let the monochrome screen appear. Demagnetize the CRT with a demagnetizer. 	
	5. Set the brightness and picture to slightly higher than the standard values, and warm up for about 20 ~ 30 minutes.	6 POLES CONVERGENCE MAGNETS Fig. 1
	Adjustment method 1. Input the GREEN picture with the pattern generater, adjust the screen with the SCREEN VR to make the GREEN picture visible.	Align two purity magnets horizontally.
	After loosening the set screw of the DEF. YOKE, draw the yoke fully to the rear side to let irregular color of a vertical belt form appear on the screen.	
	Mutually pile up two PURITY MAGNETS, and set them to a horizontal position as initial magnets (Fig. 2).	Fig. 2
	4. While opening and closing or turning the claws of PURITY MAGNETS, let green vertical belts appear on the center of the screen (Fig. 3).	Green belt
		Shift the green belt to the center Fig. 3



CONVERGENCE

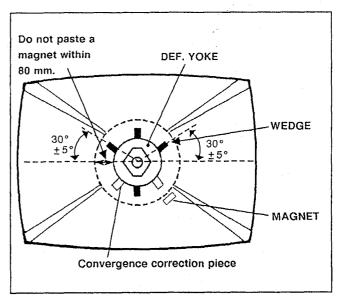


ADJUSTMENT OF DYNAMIC CONVERGENCE FOR AV-35BP5

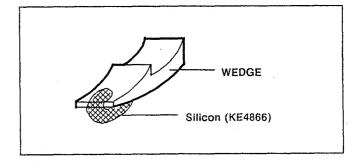
Adjustment Part	Description	Remarks
Y _H VR YV VR DIFFERENTIAL COIL	Adjust the dynamic convergence by means of the YH VR, YV VR and DIFFERENTIAL COIL. This adjustment should not be performed by oscillation of the DEF. yoke.	DIFFERENTIAL COIL Fig. 7
	Adjustment method 1. Align the displacement of the red and blue vertical lines by adjustment with the YH VR (Figs. 7 and 8). 2. Align the displacement of red and blue in Fig.9 by adjustment with the Yv VR (Figs. 7 and 9).	YH correction G R(B) B(R) Fig. 8 R(B) G B(R)
	3. Align the displacement of red and blue in the section A by adjustment with the DIFFERENTIAL COIL(Figs. 7 and 10).	Yv correction B(R) G R(B) Fig. 9
	After completing adjustment of the purity and convergence, fix the six magnets using adhesive.	A R(B) B(R) Fig. 10

PURITY · CONVERGENCE Precautions for Adjustment

- Should it be unavoidable to use a magnet to correct the purity, the magnet to be pasted should be separated by more than 80 mm from the DEF. yoke (If the magnet is made closer to the DEF. yoke, distortion will appear on the screen).
- 2. As shown in Fig, on the right side, attach the wedges for fixing the DEF. YOKE.
 - Moreover, apply silicon (KE4866) on the tips of the wedges. In this case, be sure not to apply it beside the tips.
- In principle, any convergence correction piece should not be used. If unavoidable to do so, use it in a diagonal direction. Moreover, four or more correction pieces should not be used.



Back of CRT



■ HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing of the high voltage hold down circuit shown in Fig. 1. This circuit shall be checked to operate correctly.

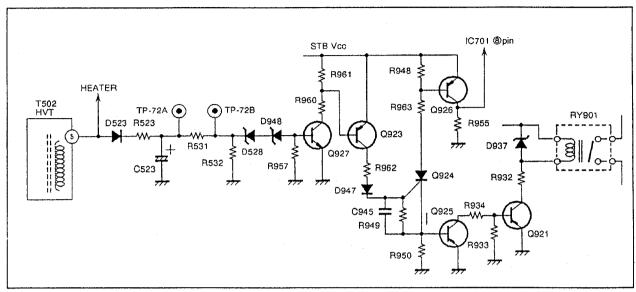


Fig. 1

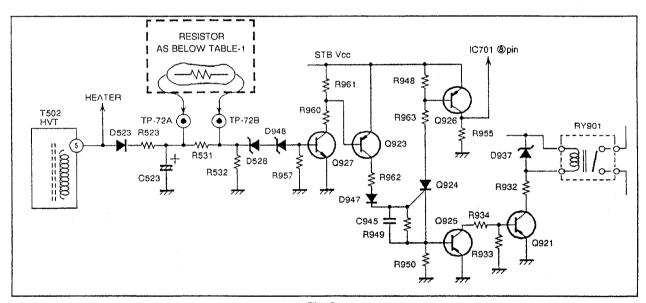


Fig. 2

2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT.

- (1) Make sure that the power SW is at OFF.
- (2) As shown in Fig. 2, set resistor between TP-72A and TP-72B as below TABLE-1.
- (3) Turn the power SW ON.

- (4) Make sure that the screen picture disappears.
- (5) Turn the power SW OFF.
- (6) Remove below resistor from TP-72A and TP-72B.

TABLE-1

RESISTOR	AV-27BP5	AV-31BP5	AV-31BM5	AV-35BP5
ADD. RESISTOR	13.11kΩ ^{+0.07} / _{-0.0} kΩ 1/4W	13.11kΩ ^{+0.07} / _{0.0} kΩ 1/4W	13.11kΩ $\frac{+0.07}{-0.0}$ kΩ 1/4W	8.51kΩ $\frac{+0.07}{-0.0}$ kΩ 1/4W

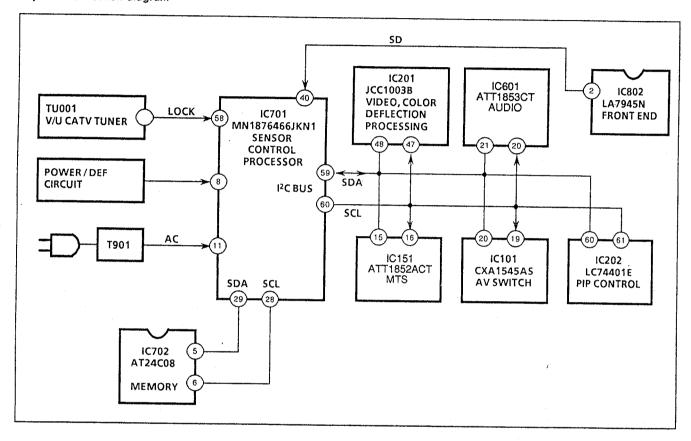
■ SELF CHECK FUNCTIONS

OUTLINE

This model includes a self check function that checks the circuit operating status and in event of malfunction, displays and stores the data in a memory. The data are stored in an I²C (IC702) memory.

Fault detection starts with the I2C bus and is performed according to the input states of the control lines connected to the main CPU.

System connection diagram



USAGE

Self check display mode entry

- 1) Set the SERVICE ADJUSTMENT MODE (see page 2-16) .
- 2) At the service mode menu, select the SELF-CHECK MODE.
- 3) The screen indicates as shown in the table and the self check display mode is entered.

Self check display mode release

- 1) To save the fault history
 - Press the EXIT key of the remote controller or disconnect the power cord from the AC outlet.
- 2) To delete (reset) the fault history
 - Use the power key of the remote controller (or main power switch of the TV set mainframe.) to switch off the power.

Fault history

The fault history counts up to a maximum of 9 times for each item. If the number of times exceeds 9, the display remains at 9.

The fault history remains stored in the memory until deleted.

* The sync signal (presence or absence) is not counted or stored.

< Self Check Function display mode >

BUS							
TUN	NG1	MEM	GOOD				
POW/		VCD	NG1				
DEF	GOOD	TONE	GOOD				
SYNC	GOOD	MTS	NG3				
TIM	GOOD	SW	GOOD				
		PIP	GOOD				

GOOD: NORMAL

NG 3

ABNORMAL NUMBER
ABNORMAL

Since sync is not counted, the fault times are not displayed.

Self check function operation

In addition to an actual fault, the following cases can be interpreted as faults to produce NG display and count.

- 1) Pulse or other type interference temporarily preventing signal transfer between circuits.
- 2) At power on / off, power supply (Vec) rise / fall timing deviation of ICs corresponding to the I²C bus can cause NG indications for multiple items, which can conversely interfere with check.

In cases where symptoms can be expected to recur, erasing (resetting) the fault history is recommended to ensure storing new check data.

CONTENTS

Self check is performed regarding the items indicated in the table.

Check item	Display name	Contents(check location)	Check signal(line)	Detection method
TUNER	TUN	Normal tuner operation [UV001 CEEM245-B02]	LOCK	Check for lock signal produced within a fixed time period(350ms) during channel selection.
POWER / DEF CIRCUIT	POW/DEF	Over current protector operation and over voltage protector operation.	B1 CURRENT & X-RAY DET VOLTAGE	Detection starts 5 seconds after main power ON and sub power ON. Error interpreted if faulty pulse input for more than 1 ms. The remote controller power switch remains inoperative until the power cord is disconnected, then reconnected to the AC outlet.
SYNC SIGNAL PRESENCE OR ABSENCE	SYNC	Presence or absence of video(sync) signal input [IC201, JCC1003B]	SD	Check for high potential from IC SD output pin after the self check display mode.
TIMER	TIM	Power supply frequency fluctuation(change)	AC	AC pulse counted periodically. Except for directly after CPU reset, Power supply frequency change from 50 to 60Hz, or from 60 to 50 Hz is checked during operation.

(I2C BUS)

Check item	Display name	Contents(check location)	Check signal(line)	Detection method
MEMORY	MEM	Normal memory read /write operation [IC702 AT24C08]	SDA	At power ON, a special pattern is written into a special address. This is read out and compared.
Video, color, deflection process	VCD	Normal IC operation [IC201 JCC1003B]	SDA	Check that data are sent from IC in response to CPU request
Audio control	TONE	Normal IC operation [IC601 ATT1853CT]	SDA	Check that data are sent from IC in response to CPU request
MTS demodulation	MTS	Normal IC operation [IC151 ATT1852ACT]	SDA	Check that data are sent from IC in response to CPU request
Input switching	SW	Normal IC operation [IC101 CXA1545AS]	SDA	Check that data are sent from IC in response to CPU request
PIP control	PIP	Normal IC operation [IC202 LC74401E]	SDA	Check that data are sent from IC in response to CPU request

AV-27BP5(US/CA) /AV-35BP5(US/CA) AV-31BP5(US/CA) /AV-31BM5(US/CA)

■NOTE ON USING CIRCUIT DIAGRAMS 1.SAFETY

The components identified by the Asymbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM **VALUES**

The voltage and waveform values have been measured under the following conditions.

(1)Input signal

:Color bar signal

(2) Setting positions

of each knob/button

and variable resistor

:Original setting position

when shipped

(3)Internal resistance of tester

:DC 20kΩ/V

(4)Oscilloscope sweeping time

:Н ⇒20µS/div

:v ⇒5mS/div

:Others => Sweeping time is

specified

(5)Voltage values

:All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOLIEXAMPLE

In the PW board

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

Resistance value

No unit

М

:[KΩ]

:[MΩ]

Rated allowable power

No indication :1/6[W]

Others

:As specified

Type

No indication :Carbon resistor

OMR

:Oxide metal film resistor

MFR

:Metal film resistor

MPR

:Metal plate resistor

UNER

:Uninflammable resistor

FR

:Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

Capacitance value

1or higher

:[pF]

less than 1

•Withstand voltage

No indication :DC50[V]

:[µF]

Others

:DC withstand voltage[V]

AC indicated :AC withstand voltage[V]

* Electrolytic Capacitors

47/50[Example]:Capacitance value[μF]/withstand voltage[V]

STANDARD CIRCUIT DIAGRAM

Type

No indication: Ceramic capacitor

MY

:Mylar capacitor

MM

:Metalized mylar capacitor

PP

:Polypropylene capacitor

MPP

:Metalized polypropylene capacitor

MF

:Metalized film capacitor

TE

:Thin film capacitor

BP

:Bipolar electrolytic capacitor

TAN

:Tantalum capacitor

(3)Coils

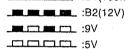
No unit

:[µH]

:As specified

Others (4)Power Supply

:B1(135.5V ± 1V)



* Respective voltage values are indicated.

(5)Test Point



: Test point

: Only test point display

(6)Connecting method



: Connector

: Wrapping or soldering

(7)Ground symbol

: LIVE side ground : ISOLATED(NEUTRAL) side ground

: EARTH ground

: DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (primary: 1) side GND and the ISOLATED (NEUTRAL:) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED (NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED (NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.
- \diamondsuit Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

CONTENTS

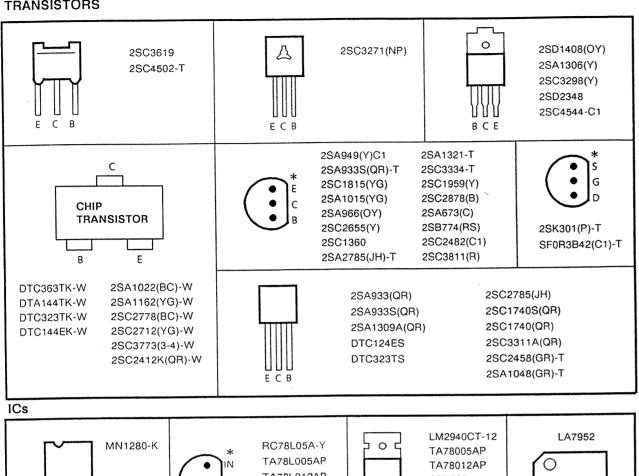
SEMICONDUCTOR SHAPES	3-3
CHANNEL CHART (US&CA)	3-4
MAIN PARTS LOCATION & WIRING DIAGRAM (AV-27/31BP5&AV-31BM5)	3-5
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MAIN PARTS LOCATION & WIRING DIAGRAM (AV-35BP5)	3-9
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DI AAV DIAADARE (EV ARDE)	3-13

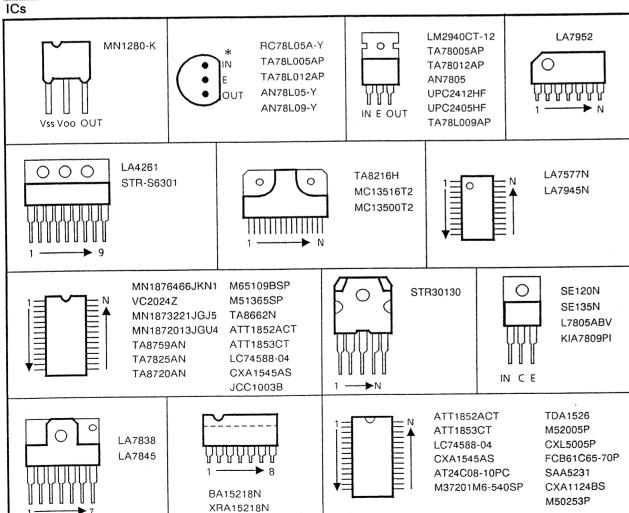
CIRCUIT DIAGRAM AND PWB PATTERNS ALLOCATION

P. W. B.	Model No.	AV-27BP5	AV-31BP5	AV-31BM5	AV-35BP5
POWER / DEE PWR	.P. W. B.	P.3-15~3-17	P.3-18~3-20	←	P.3-21~3-23
POWER / DEF. PWB	PATTERN	P.3-59~3-60	·—	←	P.3-61~3-62
CRT SOCKET PWB	P. W. B.	P.3-24	P.3-37~3-38	←	P.3-39~3-40
OH SOCKETT WB	PATTERN	P.3-55~3-56	←	←	P.3-63~3-64
MAIN PWB	P. W. B.	P.3-25~3-28	P.3-29~3-32	P.3-33~3-36	P.3-41~3-44
with CONTROL PWB	PATTERN	P.3-57~3-58	←	←	←
AV TERMI. PWB	P. W. B.	P.3-45~3-46	←	P.3-47~3-48	P.3-49~3-50
AV TERMIL TVD	PATTERN	P.3-65~3-66	←	←	P.3-67~3-68
PIP MODULE PWB	P. W. B.	P.3-53~3-54	←		P.3-53~3-54
TH WODGET WD	PATTERN	P.3-71~3-72	←		P.3-71~3-72
DBF PWB	P. W. B.				P.3-51~3-52
DDI T WD	PATTERN				P.3-69~3-70
CONTROL PWB	P. W. B.	P.3-25~3-28	P.3-29~3-32	P.3-33~3-36	P.3-41~3-44
CONTROLLWB	PATTERN	P.3-73~3-74	←	←	P.3-73~3-74
REMOTE CONTROL	P. W. B.	P.3-57	P.3-57	P.3-58	P.3-57
UNIT	UNIT No.	RM-C723	RM-C723	RM-C722	RM-C723

SEMICONDUCTOR SHAPES (* = Bottom view)

TRANSISTORS

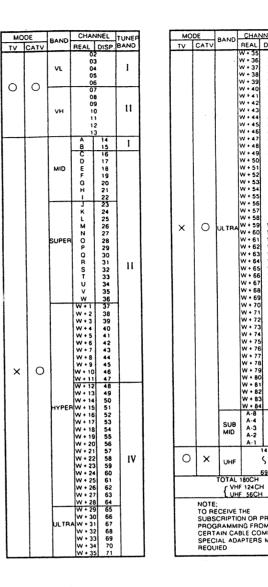




(No.50850) 3-3

CHANNEL CHART (US)

CHANNEL CHART (CA)



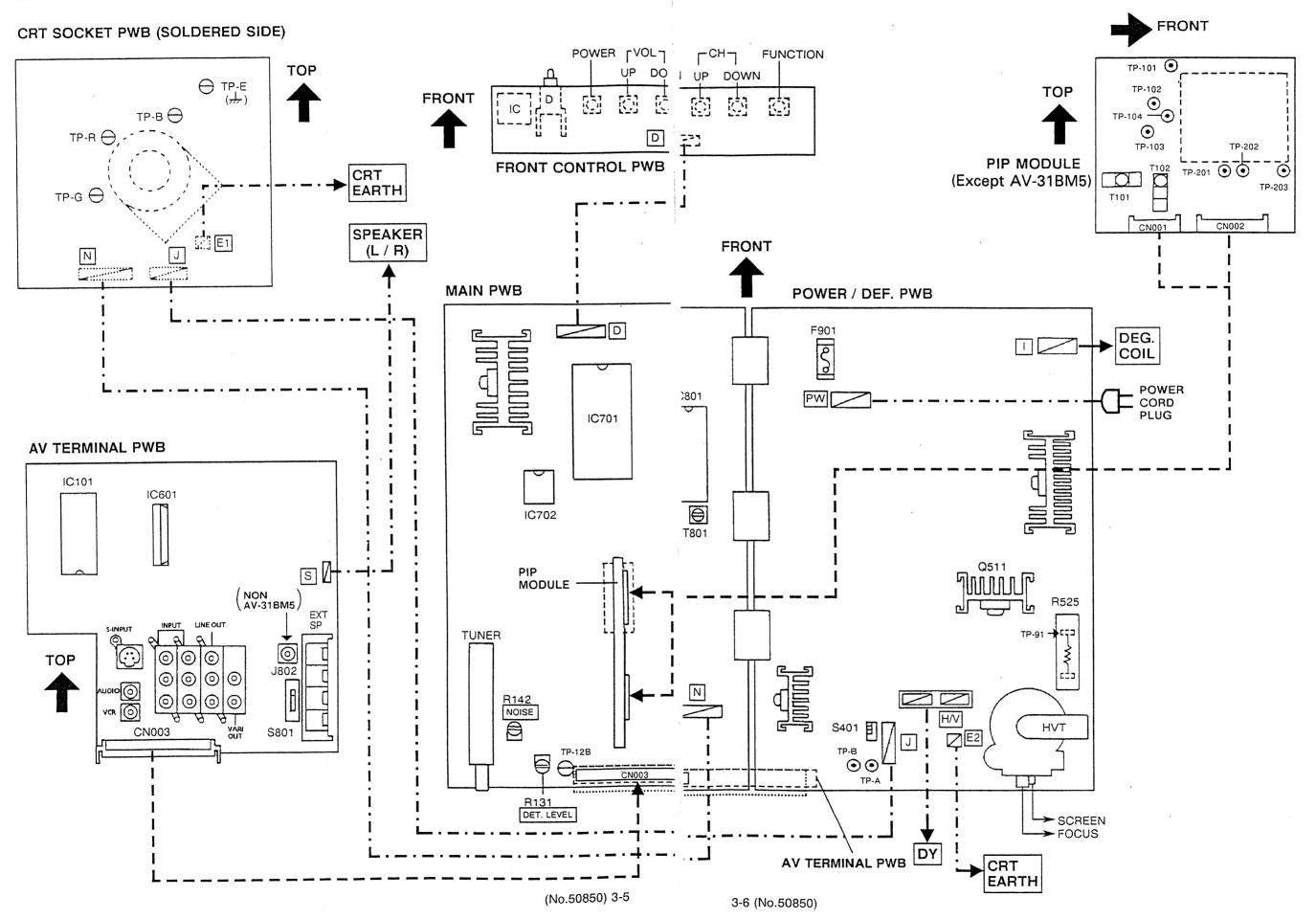
NNEL	TUNER	ı l	MO		BAND	CI
DISP.	BAND		ΤV	CATV		REA
71 72 73 74 75			0		VL	
76 77 78 79 80 81					νн	
82 83 84 85 86 87 88 89 90					MID	B C D E F G H I
92 93 94 100 101 102 103 104 105	IV				SUPER	7 K L W Z O P O R S T U > S
106 107 108 109 110 111 112 2 113 115 5 116 6 117 7 118 8 119 121 122 123 124 125 01 97 98	1		×	0	HYPER	A BCDEFGHIJK L M NOP OR ST U V S
14 \$ 69	IV					3333
H H	-	-				w :
PREMIL OM OMPANI S MAY	ES				ULTRA	88888

5	DE	BAND	CHAI	NNEL	TUNER	мО	DE	ВА
	CATV	BAND	REAL	DISP.	BAND	τv	CATV	BA
	0	VL	0 0	3	1			
)	νн	0 0 1 1	8 9 0 1 2 3				
		MID	4 B C D m r G H -	14 15 16 17 18 19 20 21	11			
		SUPER	7 K L X Z O	23 24 25 26 27 28		×	0	ULI
			J K L M N O P O R S T U V W +1	29 30 31 32 33 34 35 36				
	0	HYPER	W+3 W+4 W+5 W+6 W+7 W+8 W+9 W+10 W+11 W+12 W+13 W+14	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	111			
			W + 18 W + 19	54 55				M
			W + 20 W + 21 W + 22 W + 23 W + 24	58 59 60		0	×	U
			W + 26 W + 27 W + 28	61 62 63 64				101
		ULTRA	W + 25 W + 26 W + 27 W + 28 W + 30 W + 31 W + 32 W + 33 W + 34 W + 35	65 66 67 68 69 70 71	IV			

MO	DE	BAND	CHAN		TUNER	ı	
τv	CATV	BANC	REAL	DISP	BAND		
×	0	ULTRA	W 35 W 36 W 36 W 37 W 38	71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 100 101 102 103 104 105 106 107 118 119 111 111 111 111 111 111 111 112 112	IV		
	1		A-8	125 01	1		
		SUB	A-3 A-2 A-1	96 97 98 99	11		
0	×	UHF		14 S 59	IV		
TOTAL 180CH VHF 124CH UHF 56CH							

AV-27/31BP5 AV-27/31BP5 AV-31BM5

MAIN PARTS LOCATION AND WIRING DIAGRAM(AV-27/31BP5 & 31BM5)



WIRING LIST (AV-27/31BP5 & AV-31BM5)

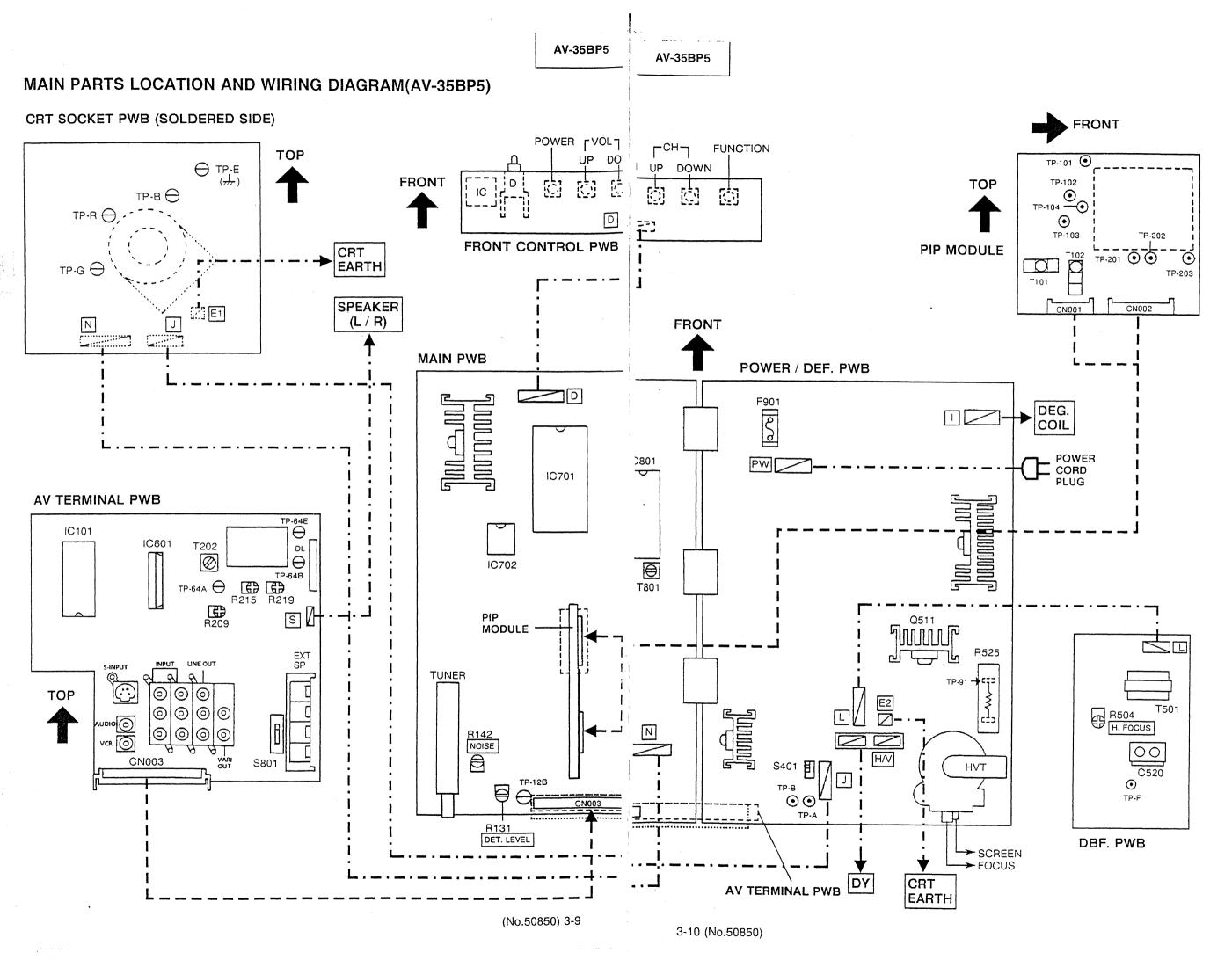
P.W.B. or PART NAME	CONNECTOR NAME	WIRE	CONNECTOR NAME	P.W.B. or PART NAME
MAIN PWB	D		D	FRONT CONTROL PWB
MAIN PWB	J		J	CRT SOCKET PWB
MAIN PWB	H/V		WIRE	DEF. YOKE
MAIN PWB	N	←	N	CRT SOCKET PWB
MAIN PWB	E2	←		CRT EARTH
POWER PWB	l		WIRE	DEG. COIL
POWER / DEF. PWB	PW		WIRER	POWER CORD
AV TERMINAL PWB	S	+	RECEPTACLE	SPEAKER (L/R)
CRT SOCKET PWB	GND	-	WIRE	CRT EARTH

[●] NOTE : Refer to Main Parts Locations and Wiring Diagram (Page 3-5, Page 3-6) for detailed connector positions.

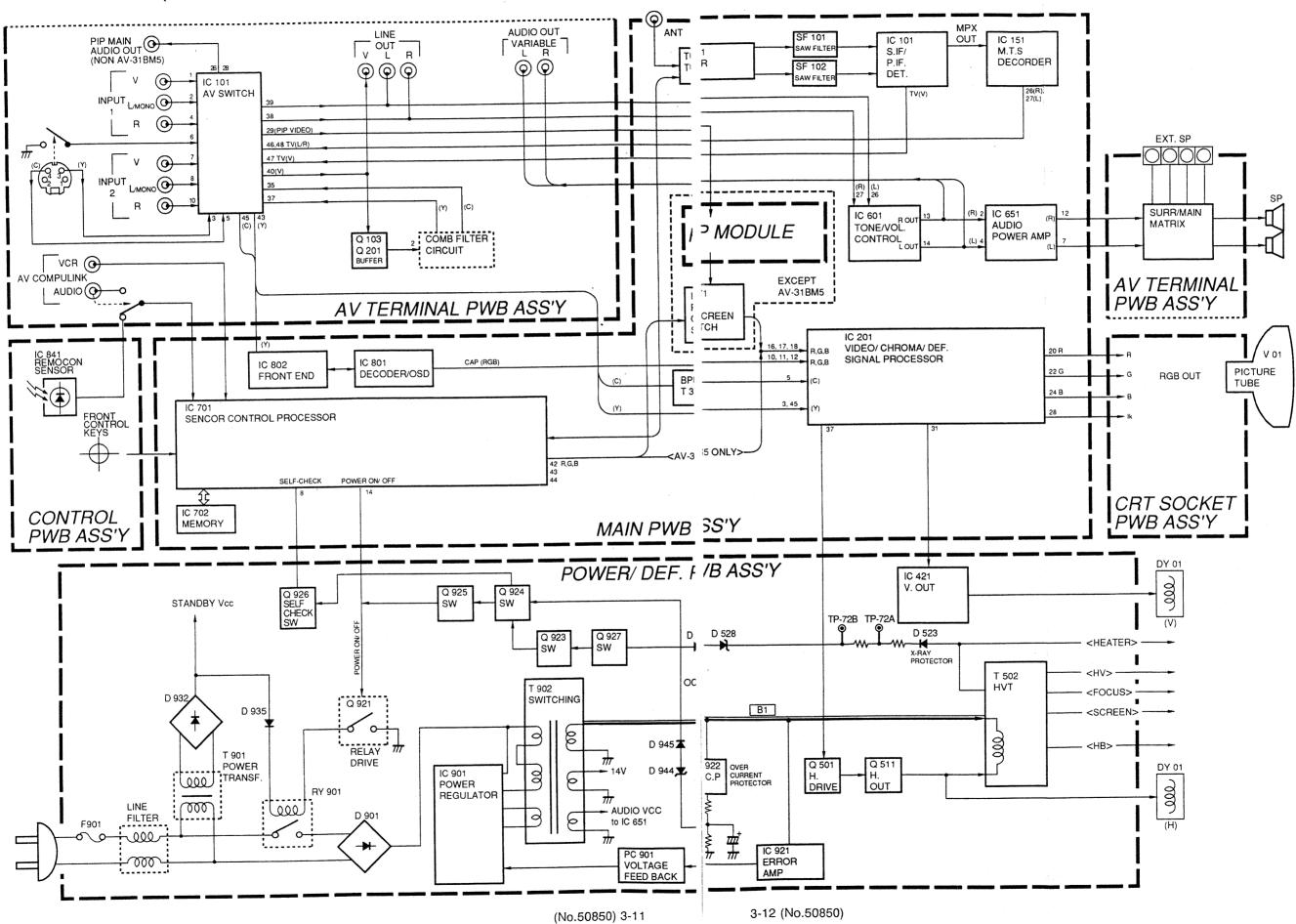
WIRING LIST (AV-35BP5)

	P.W.B. or PART NAME	CONNECTOR NAME	WIRE	CONNECTOR NAME	P.W.B. or PART NAME
f	MAIN PWB	D		D	FRONT CONTROL PWB
r	MAIN PWB	N		N	CRT SOCKET PWB
r	POWER / DEF. PWB	E2	←	WIRER	CRT EARTH
f	POWER / DEF. PWB	H/V	←	WIRE	DEF. YOKE
ľ	POWER / DEF. PWB	J	←	J	CRT SOCKET PWB
T	POWER / DEF. PWB	L	←	. L	DBF. PWB
Ī	POWER / DEF. PWB	ı	←	WIRE	DEG. COIL
	POWER / DEF. PWB	PW	←	WIRE	POWER CORD PLUG
-	AV TERMINAL PWB	S	←	WIRE	SPEAKER (L/R)
	CRT SOCKET PWB	E1		WIRE	CRT EARTH

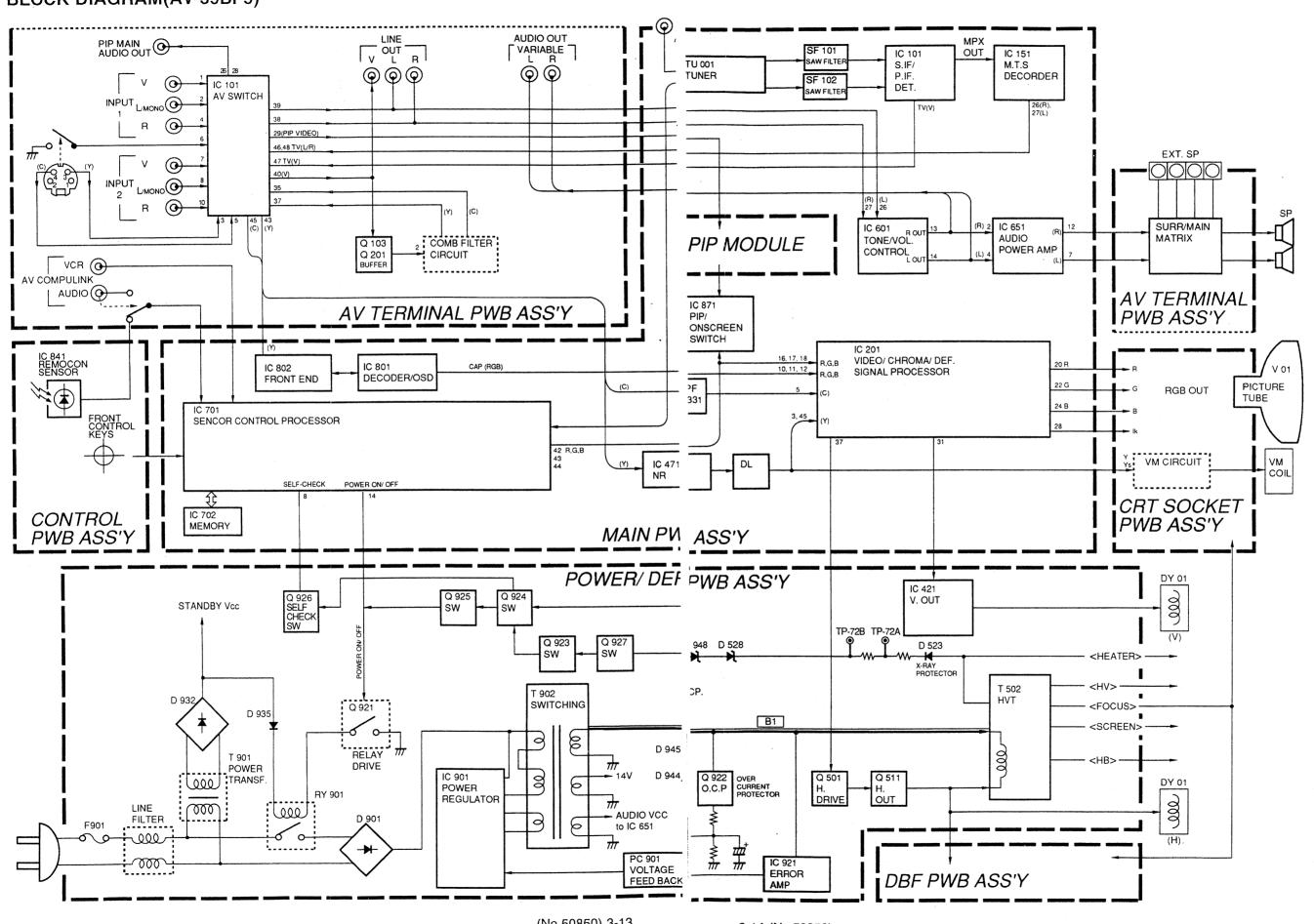
[●]NOTE : Refer to Main Parts Locations and Wiring Diagram (Page 3-9, Page 3-10) for detailed connector positions.



BLOCK DIAGRAM (AV-27/31BP5 & AV-31BM5)



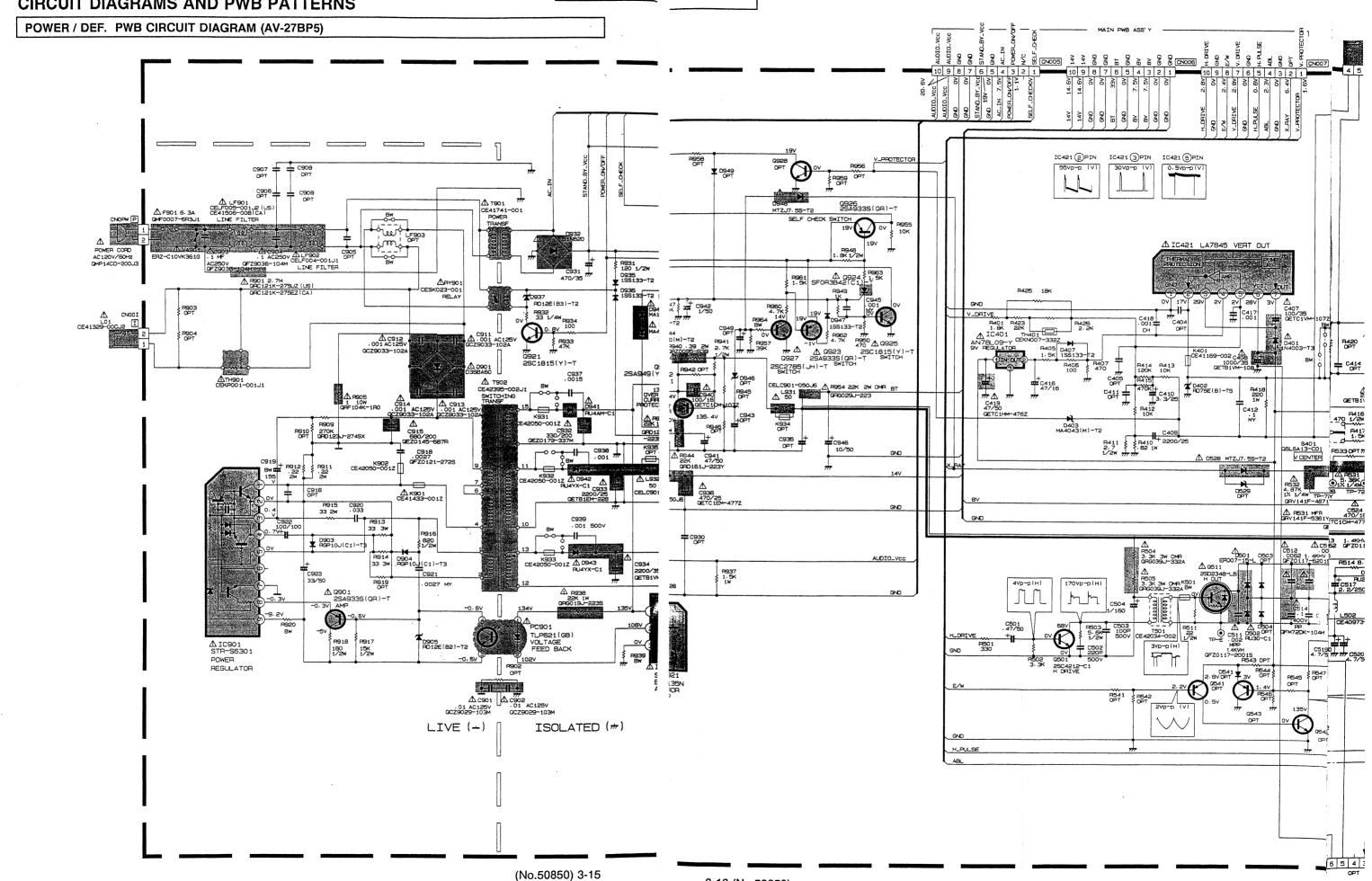
BLOCK DIAGRAM(AV-35BP5)



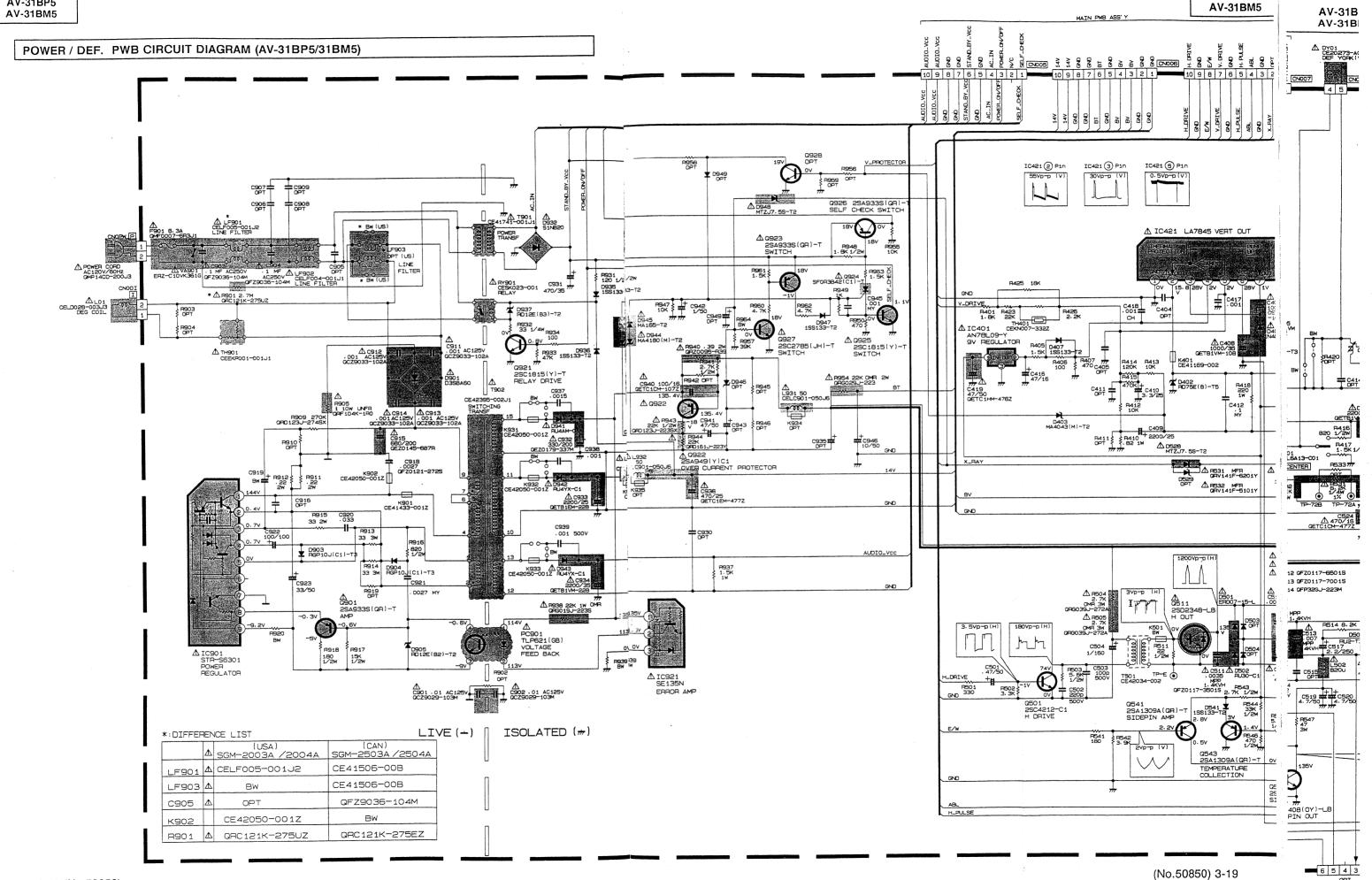
(No.50850) 3-13

3-14 (No.50850)

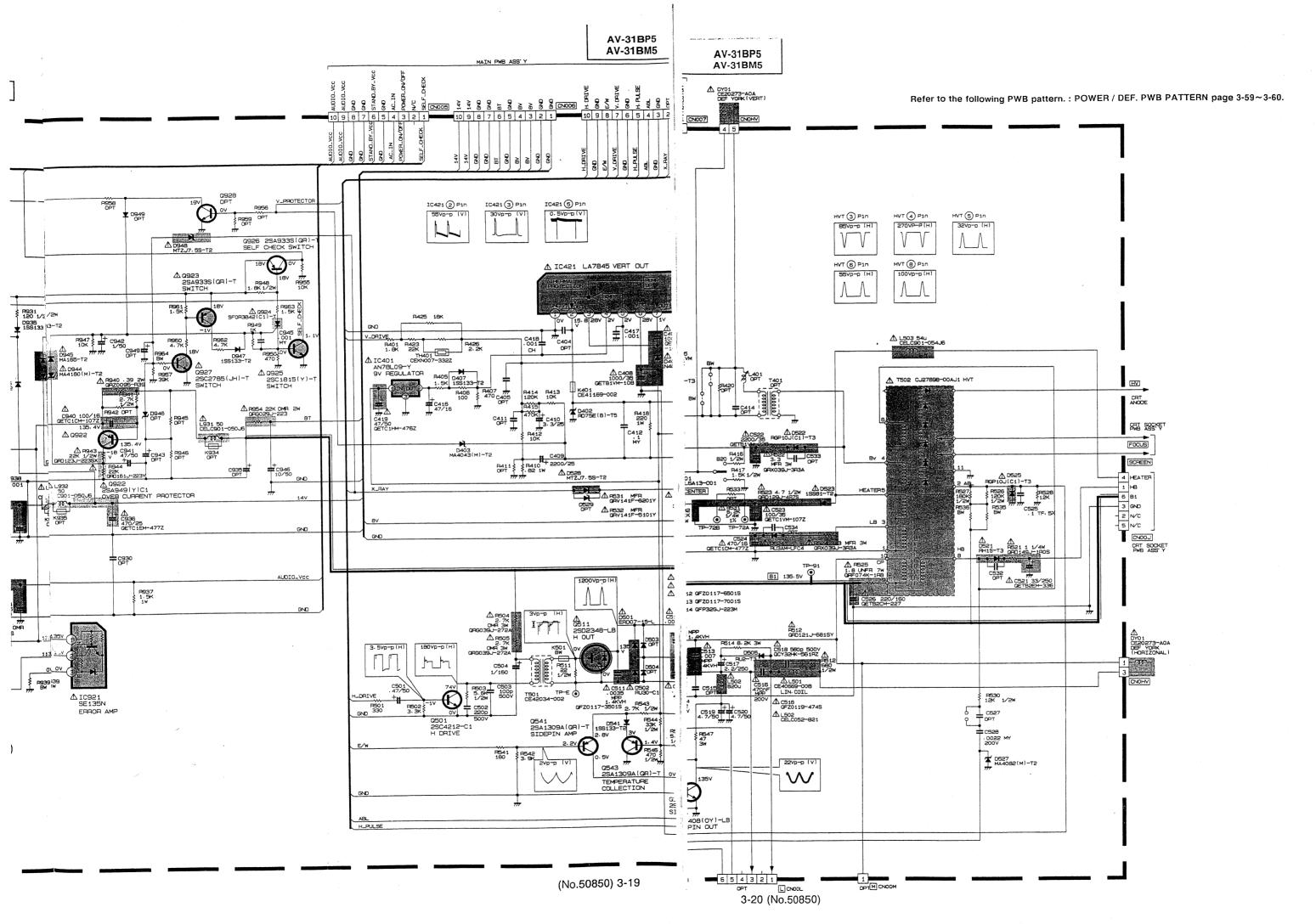
CIRCUIT DIAGRAMS AND PWB PATTERNS

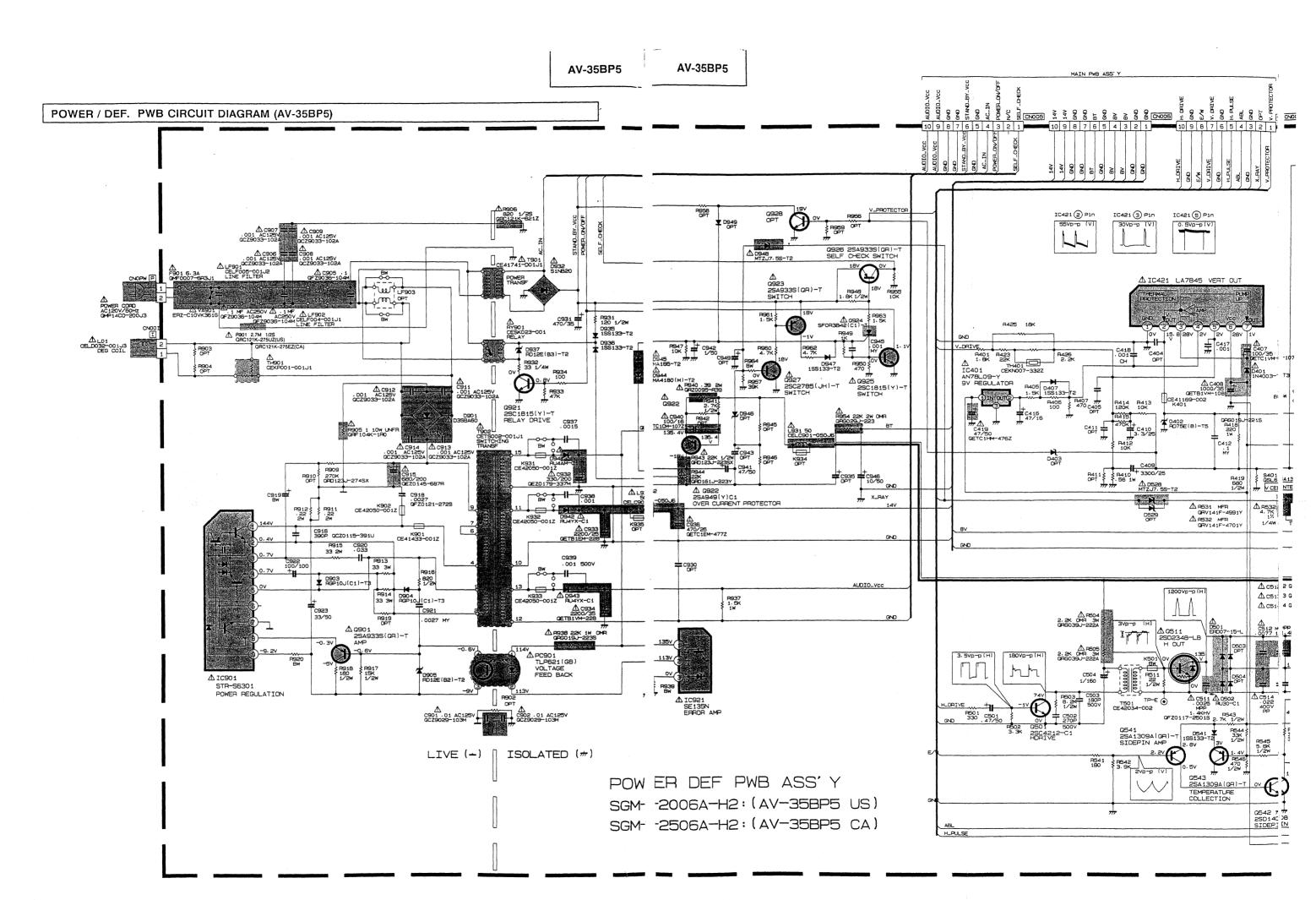


3-16 (No.50850)

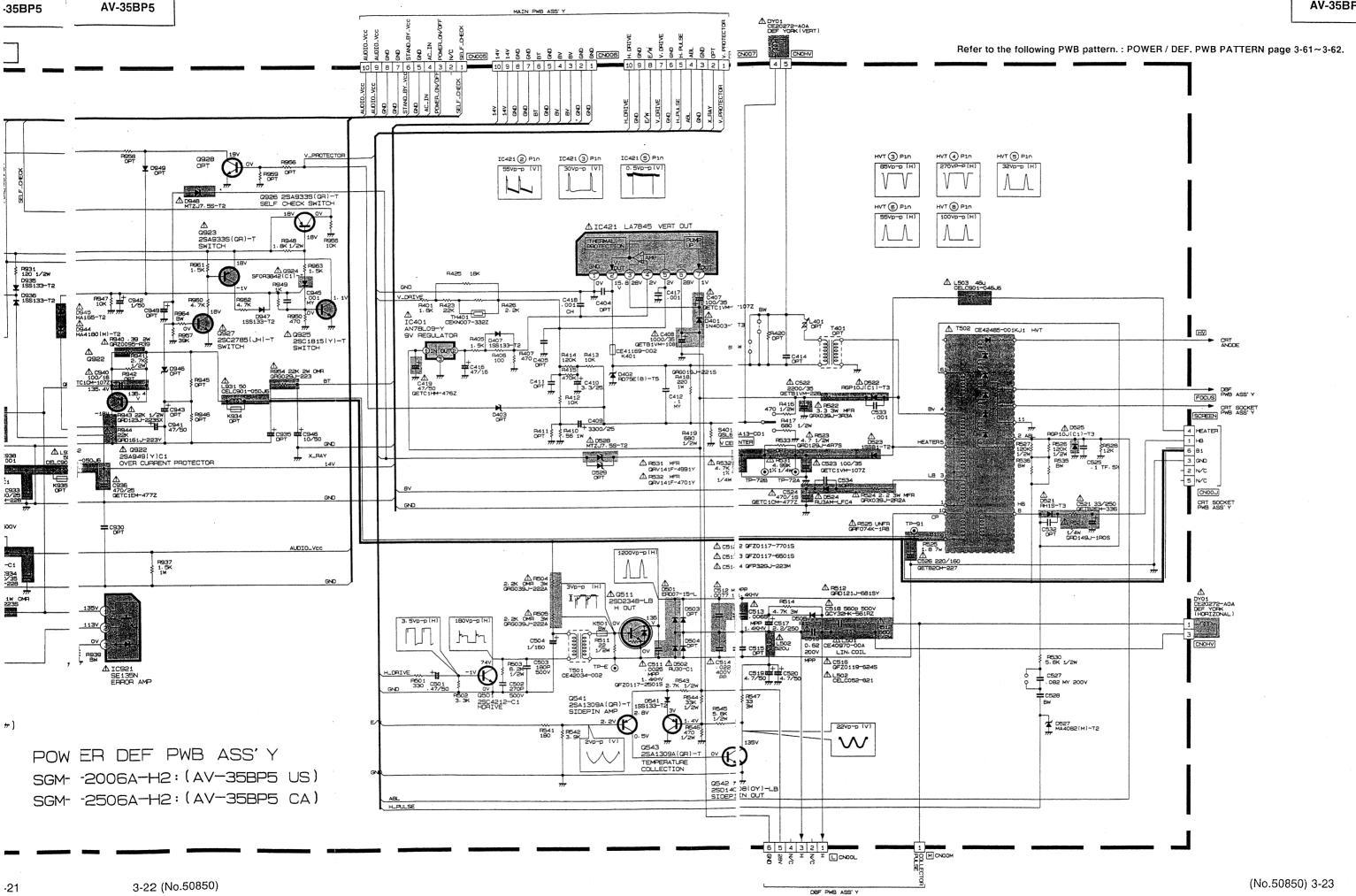


AV-31BP5



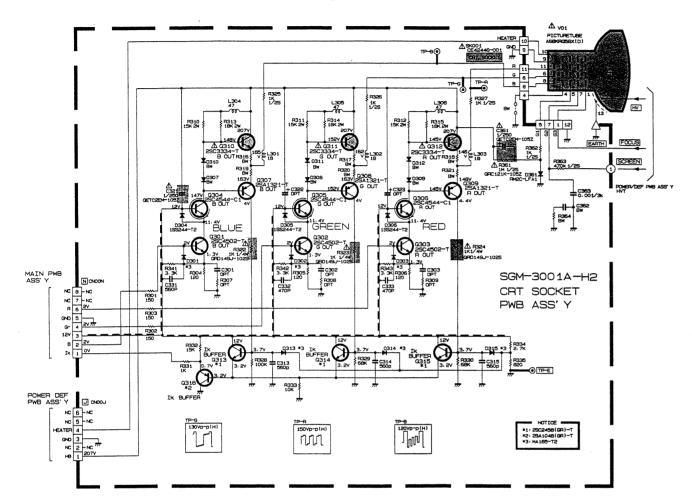




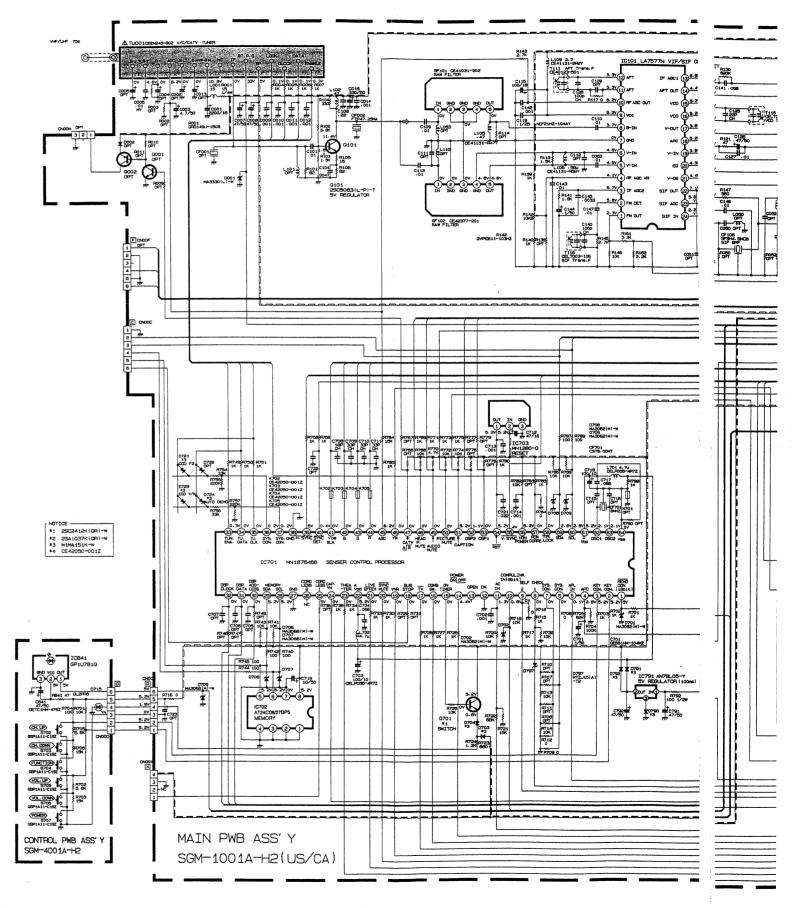


CRT SOCKET PWB CIRCUIT DIAGRAM (AV-27BP5)

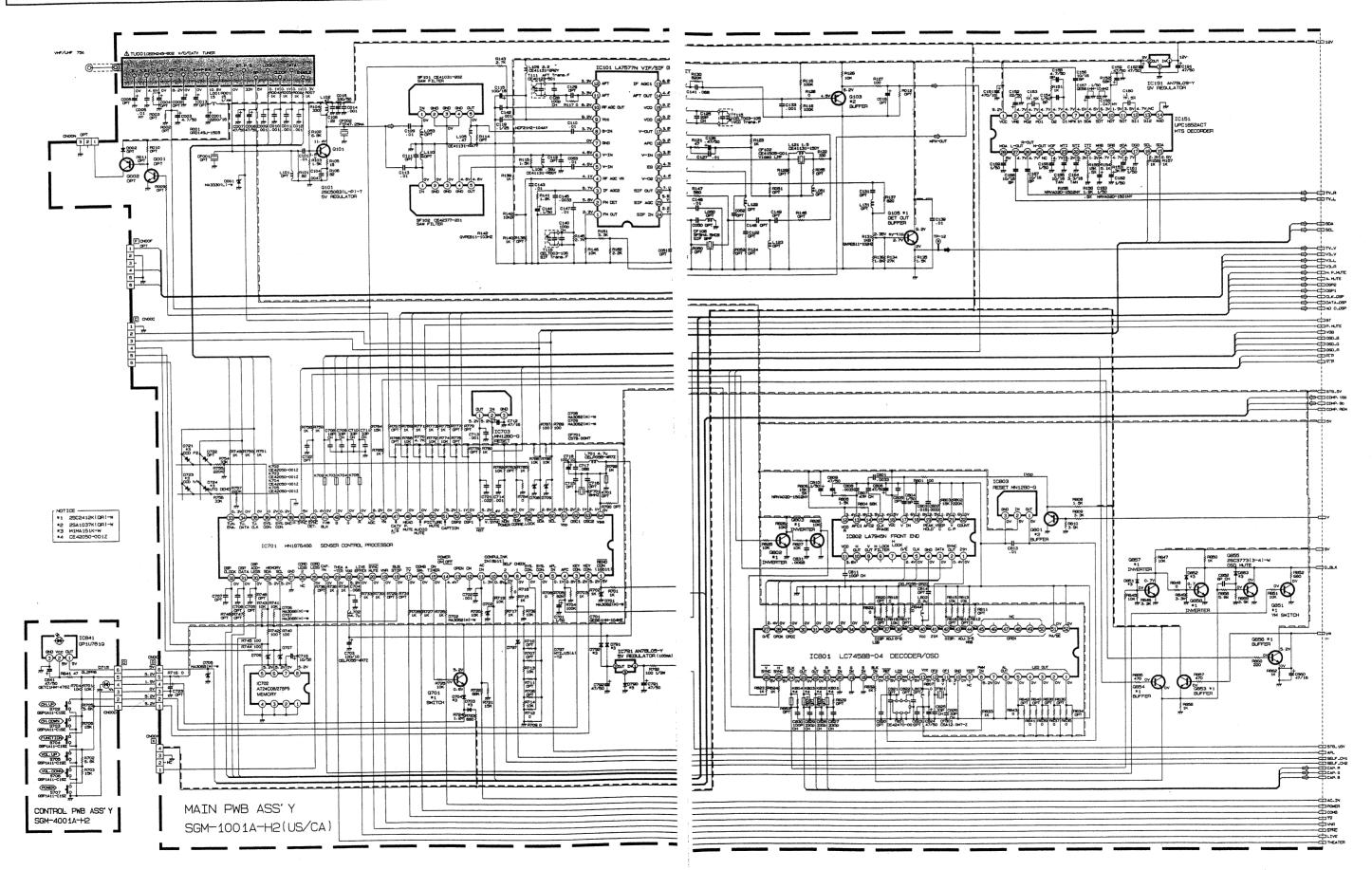
Refer to the following PWB pattern.: CRT SOCKET PWB PATTERN page 3-55~3-56.



MAIN & CONTROL PWB CIRCUIT DIAGRAMS (AV-27BP5)

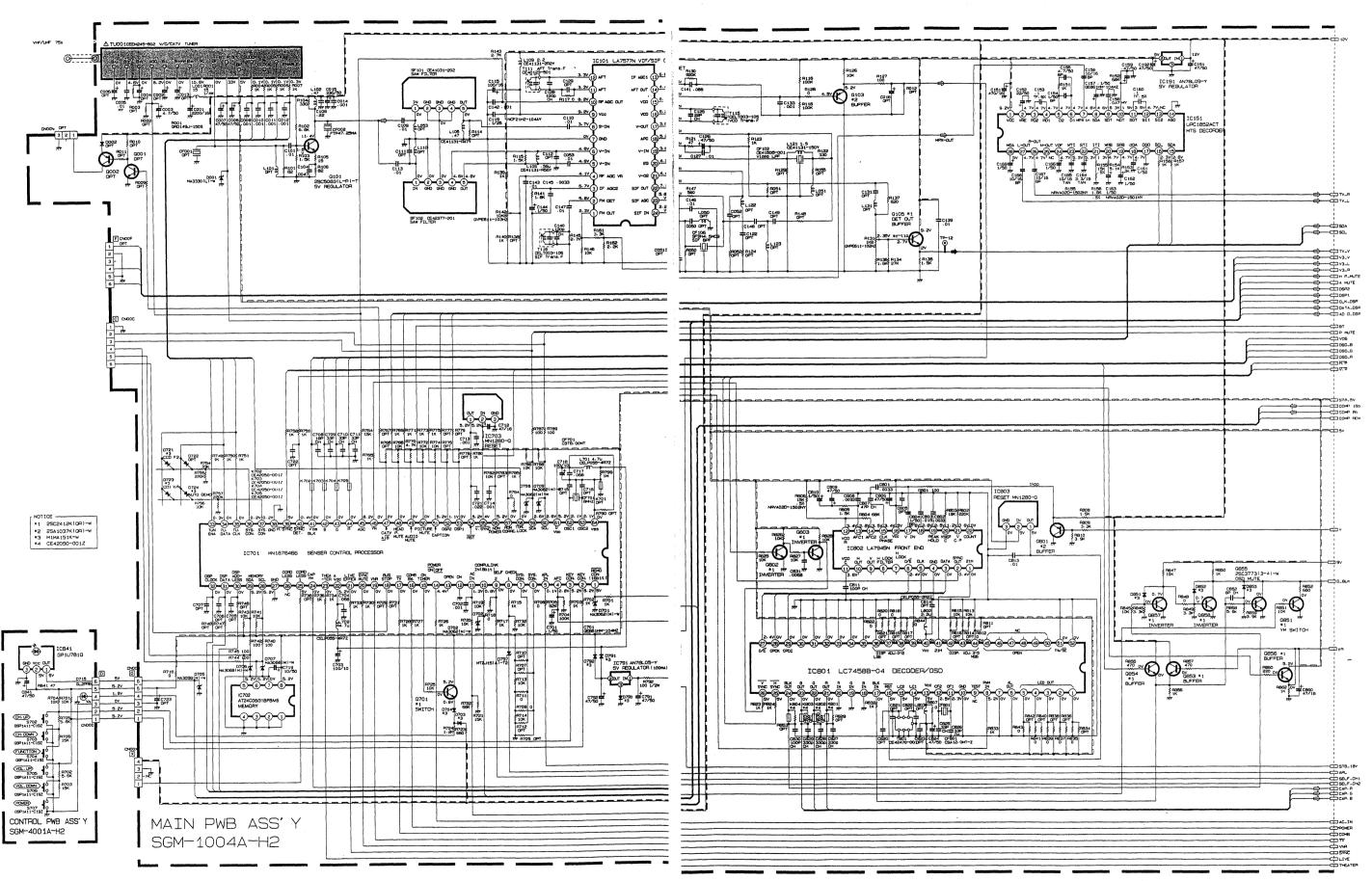


Refer to the following PWB pattern.: MAIN PWB PATTERN page 3-57~3-58, CONTROL PWB PATTERN page 3-73~3-74.



(No.50850) 3-27

3-28 (No.50850)



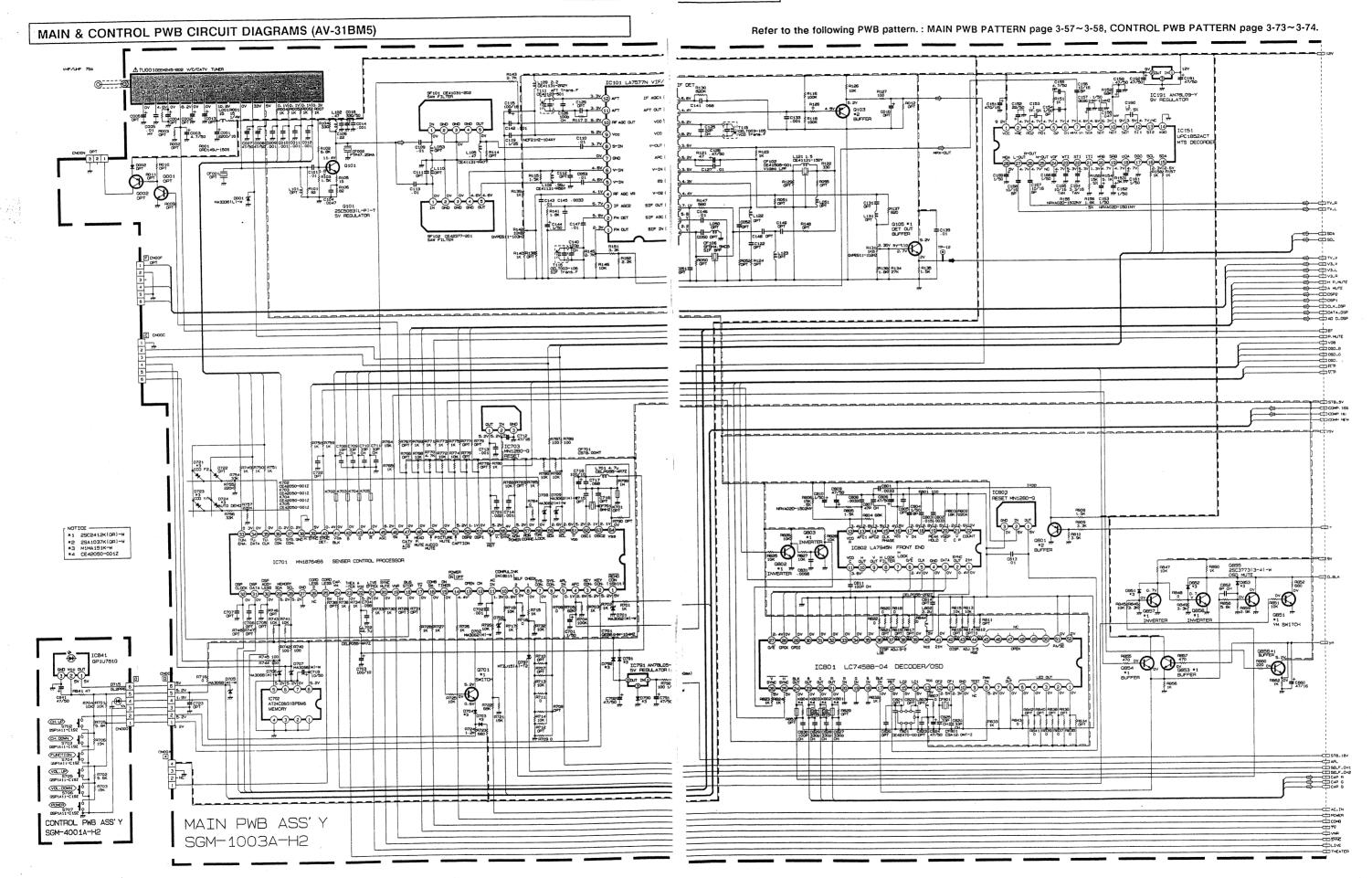
(No.50850) 3-29

3-30 (No.50850)

POWER/DEF PWb ASS'Y

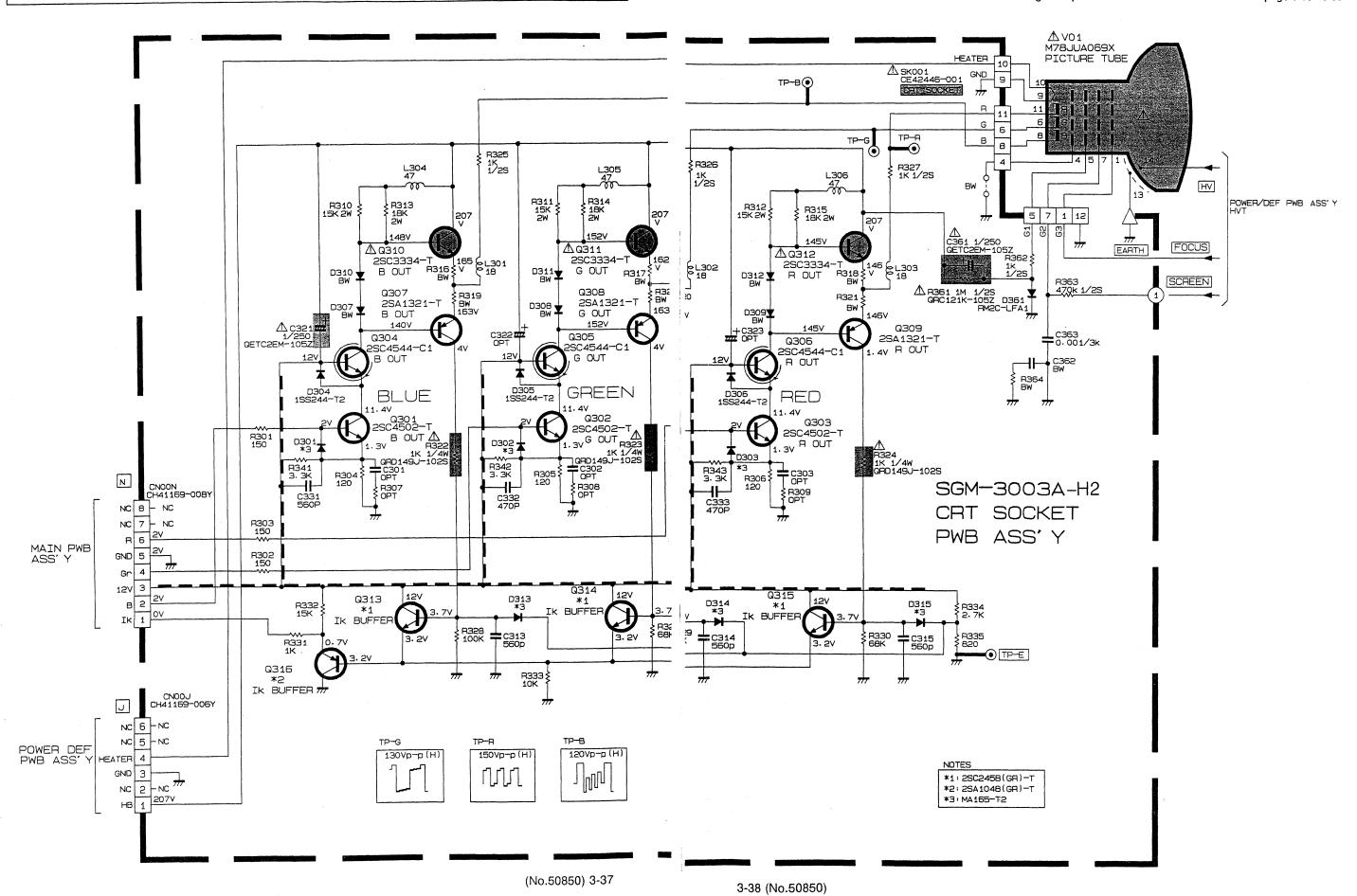
3-32 (No.50850)

(No.50850) 3-31

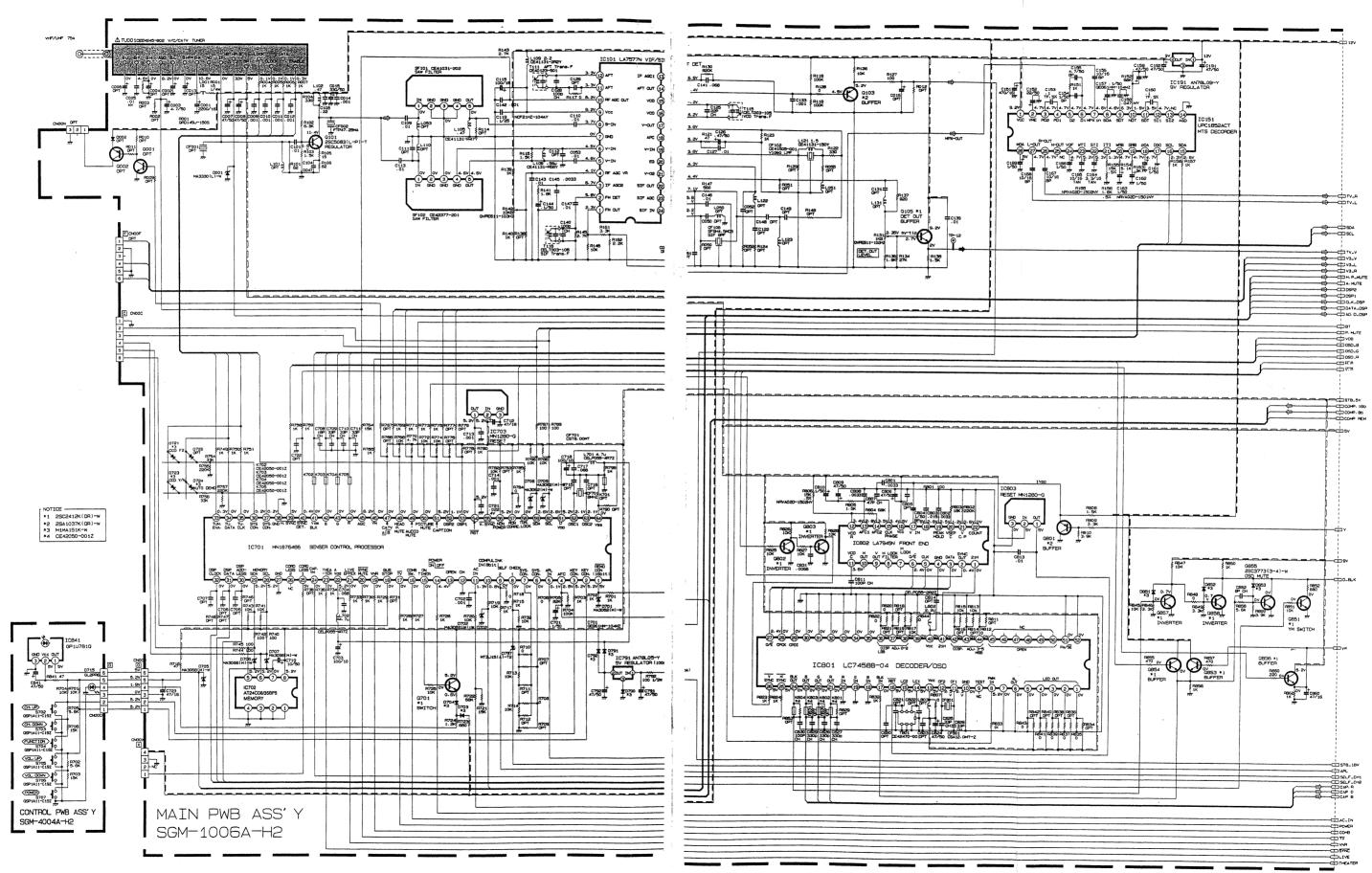


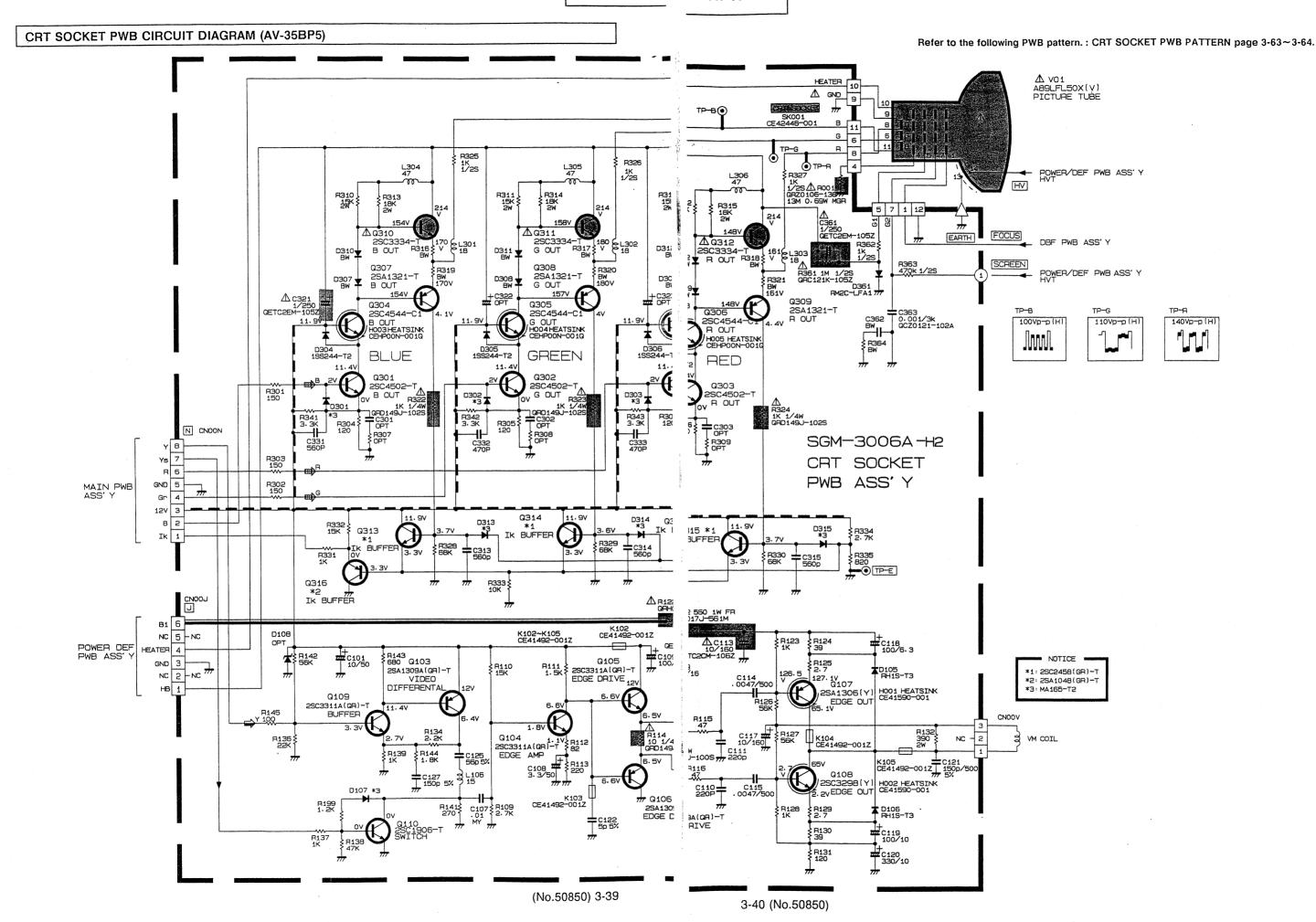
CRT SOCKET PWB CIRCUIT DIAGRAM (AV-31BP5/AV-31BM5)

Refer to the following PWB pattern.: CRT SOCKET PWB PATTERN page 3-55~3-56.

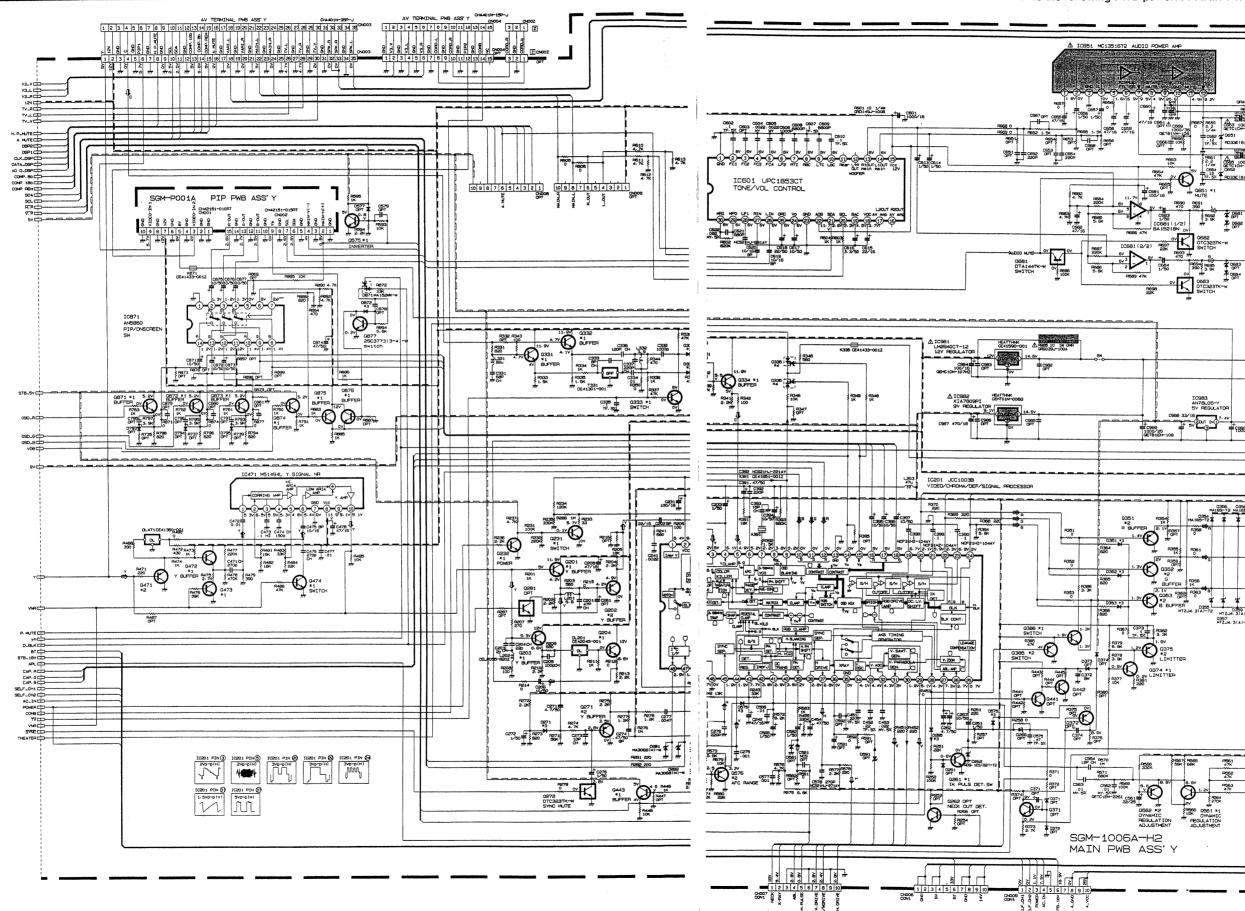


Refer to the following PWB pattern.: MAIN PWB PATTERN page 3-57~3-58, CONTROL PWB PATTERN page 3-73~3-74.



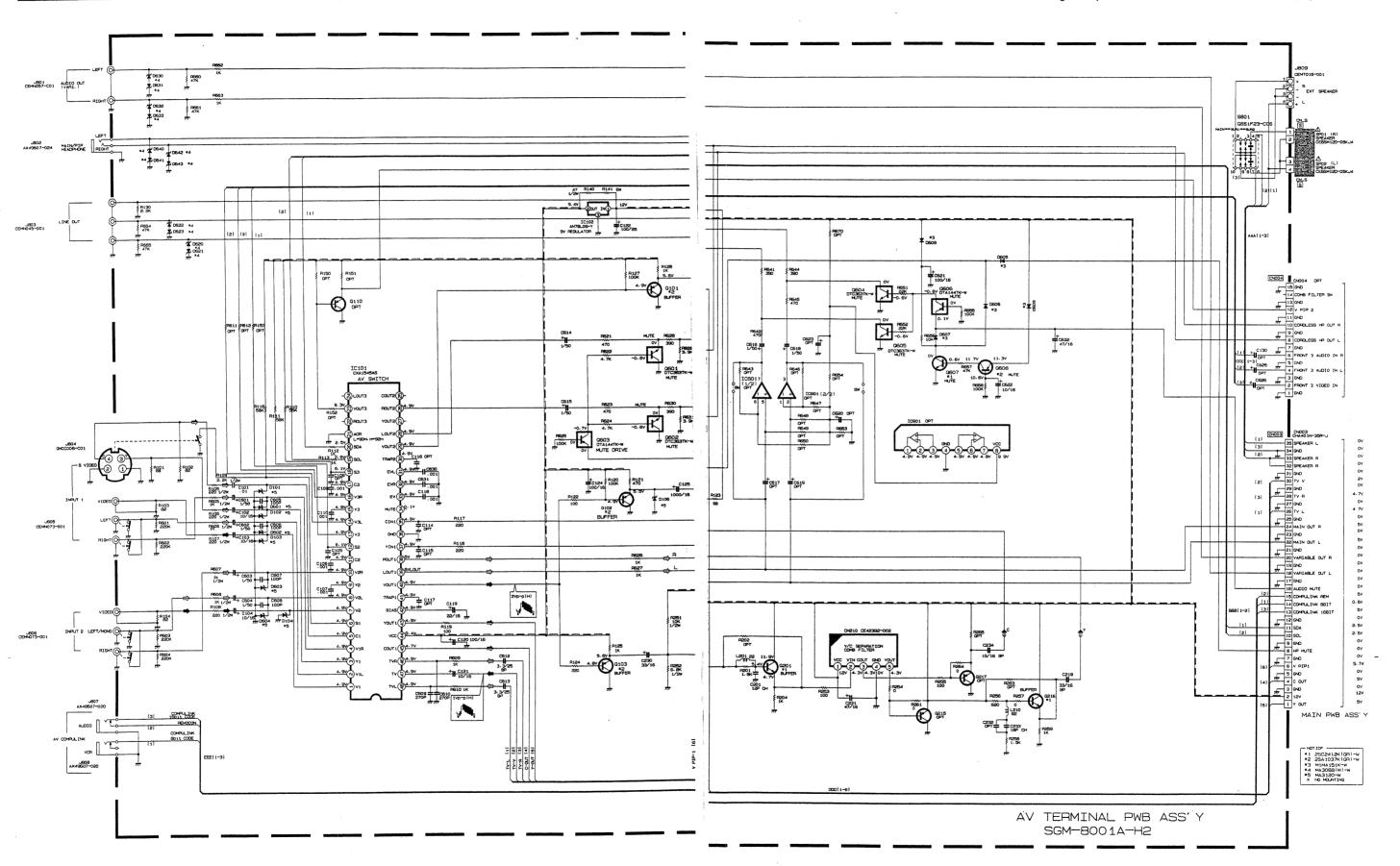


IC983 AN78L05-Y 5V REGULAT

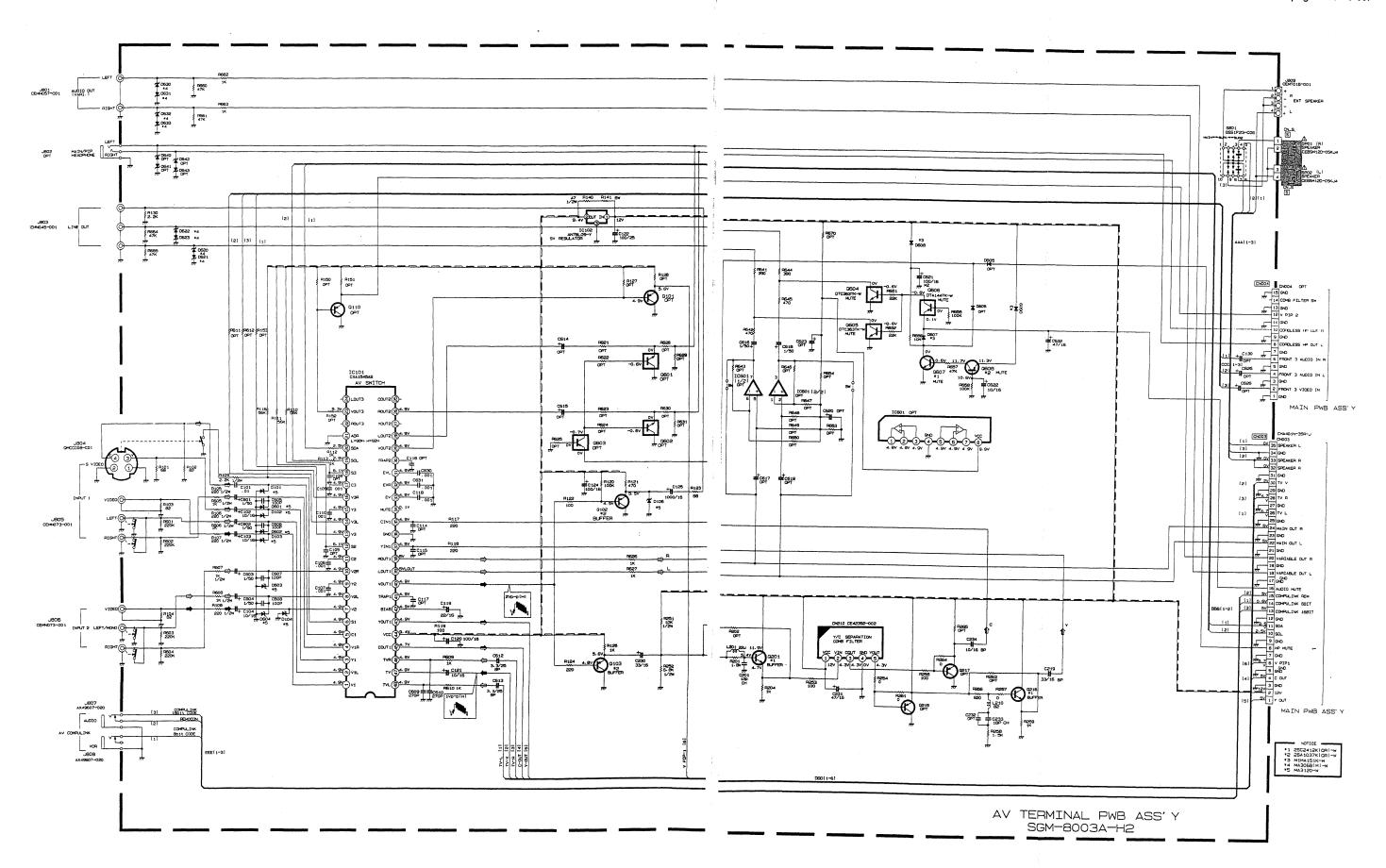


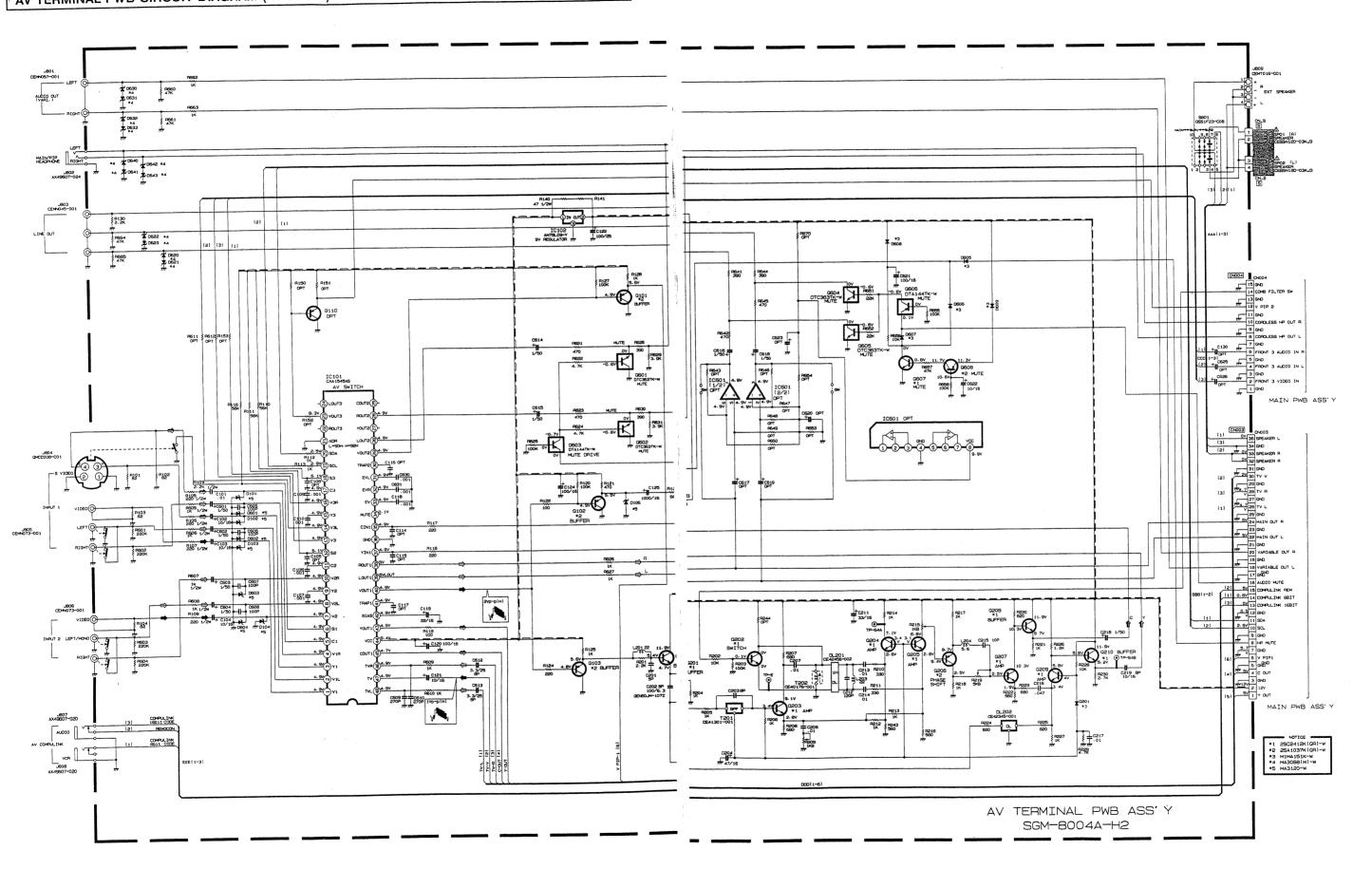
3-44 (No.50850)

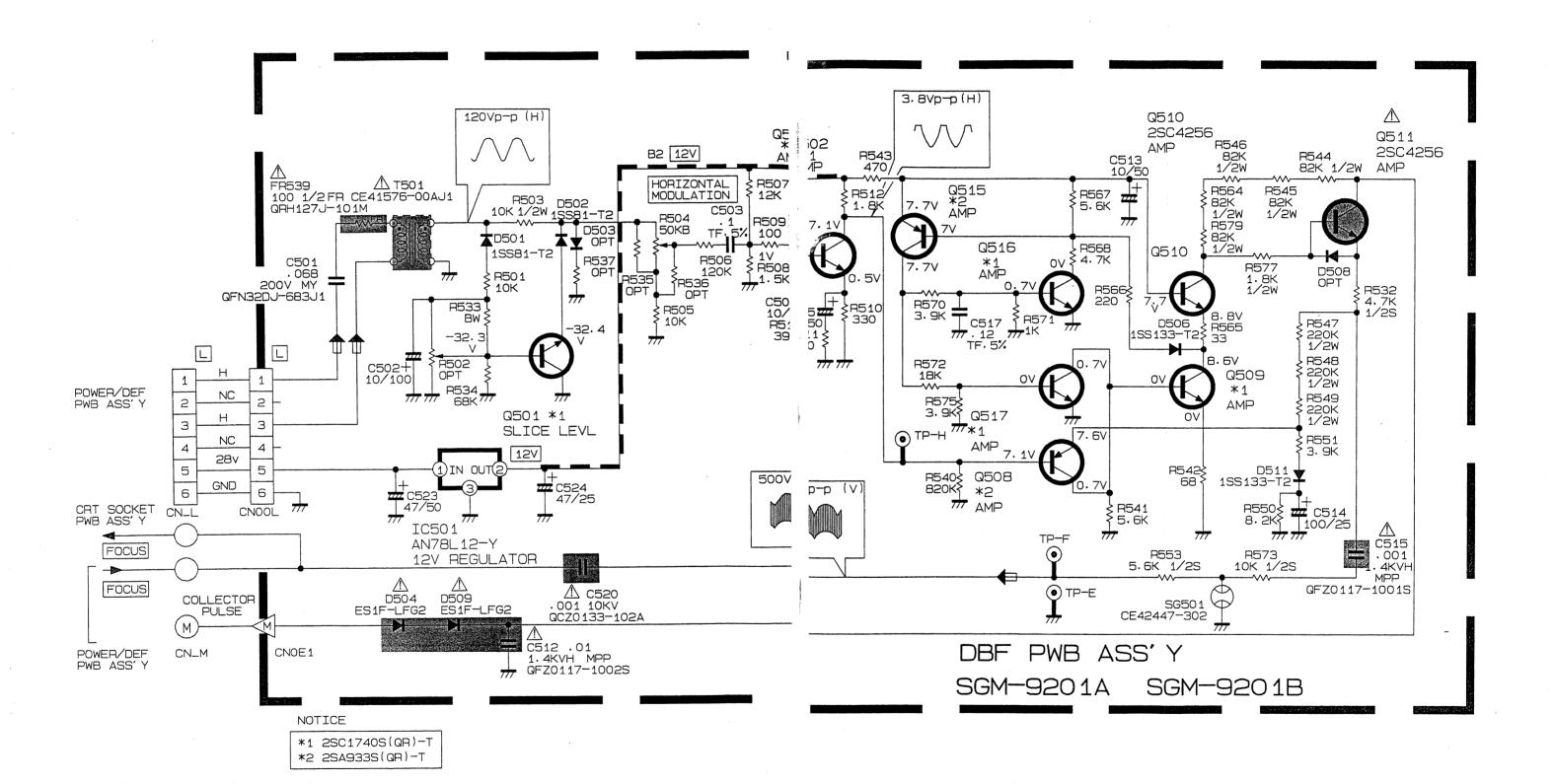
Refer to the following PWB pattern.: AV TERMINAL PWB PATTERN page 3-65~3-66.

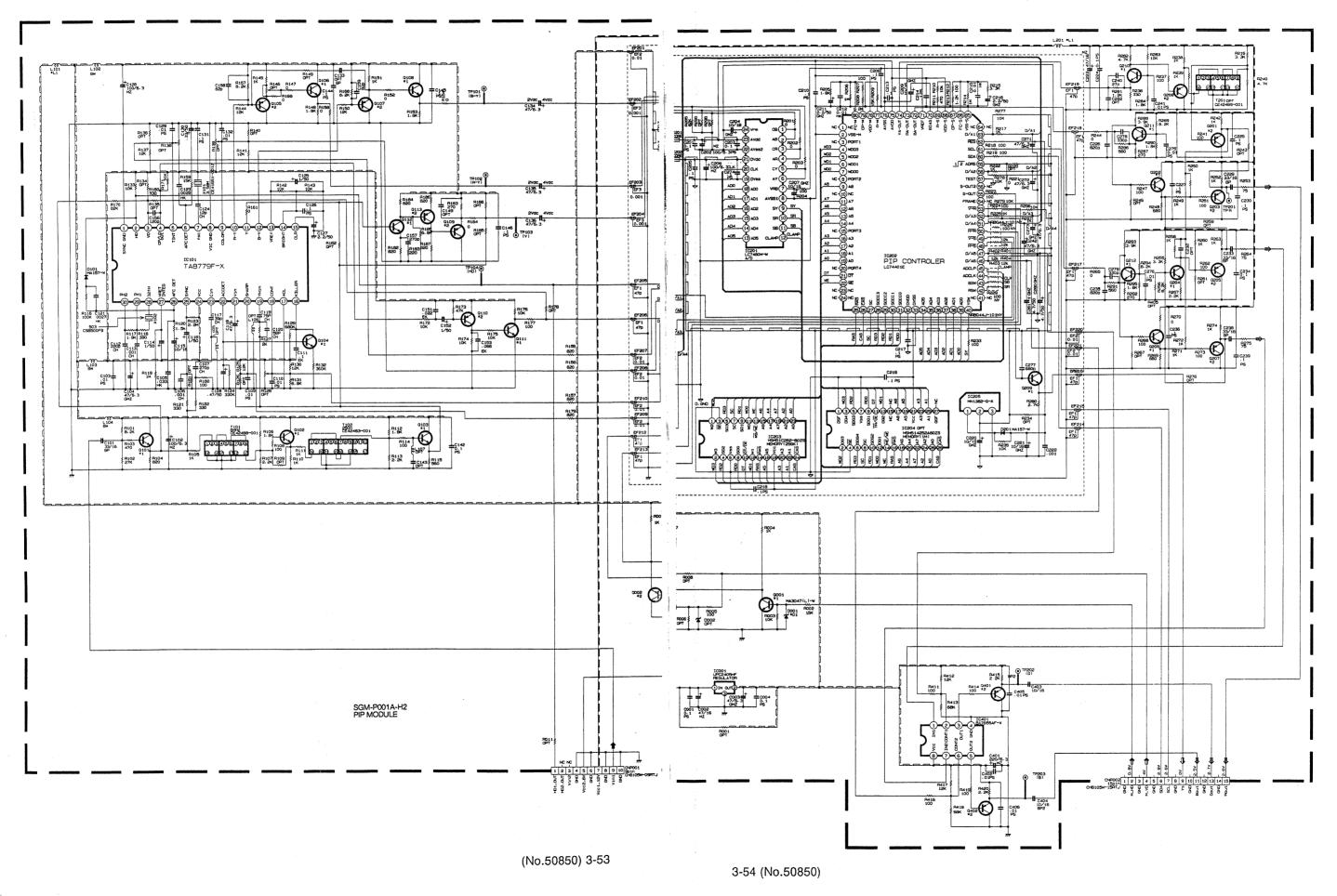


AV-31BM5

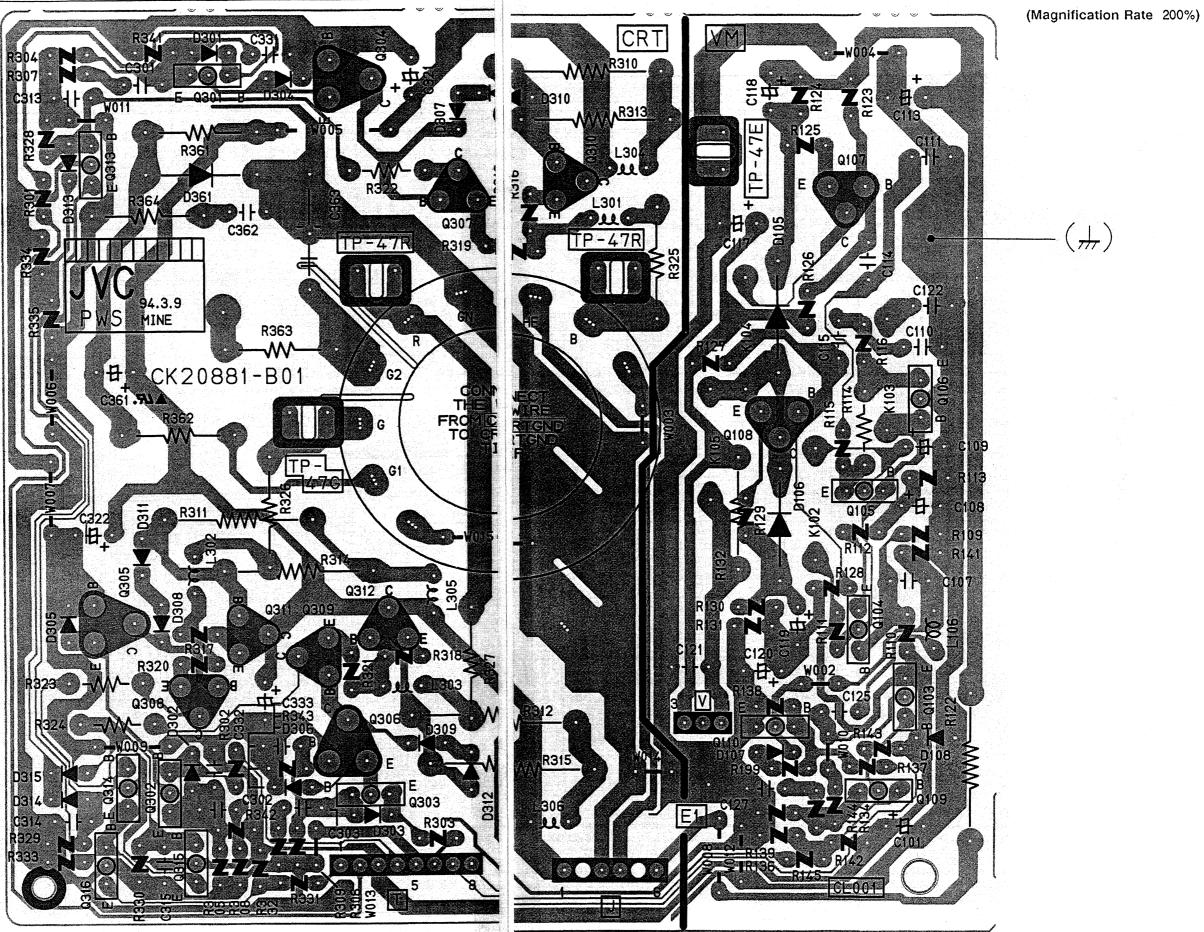






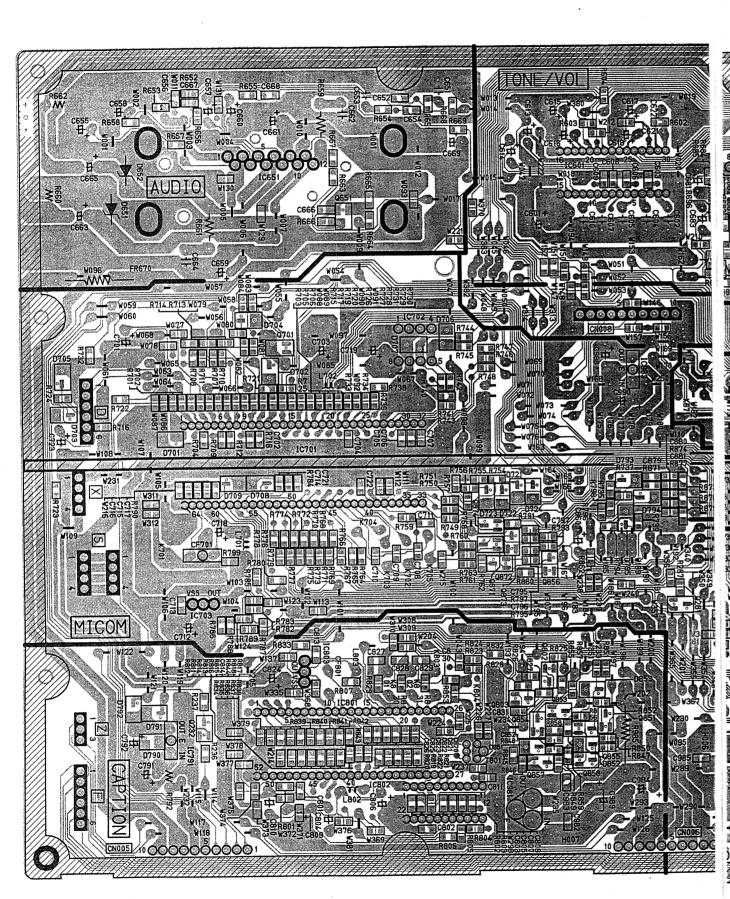


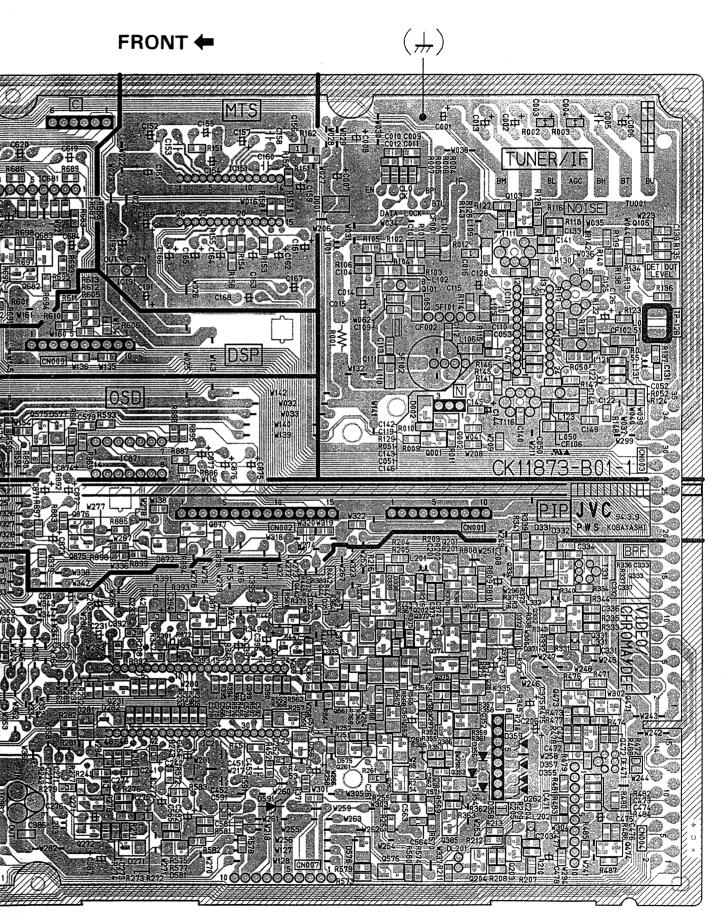
(SGM-3001A-H2 / SGM-3003A-H2)



3-56 (No.50850)

MAIN PWB PATTERN (AV-27/31/35BP5 & AV-31BM5) (SGM-1001A-H2 / SGM-1003A-H2 / SGM-1004A-H2 / SGM-1006A-H2)

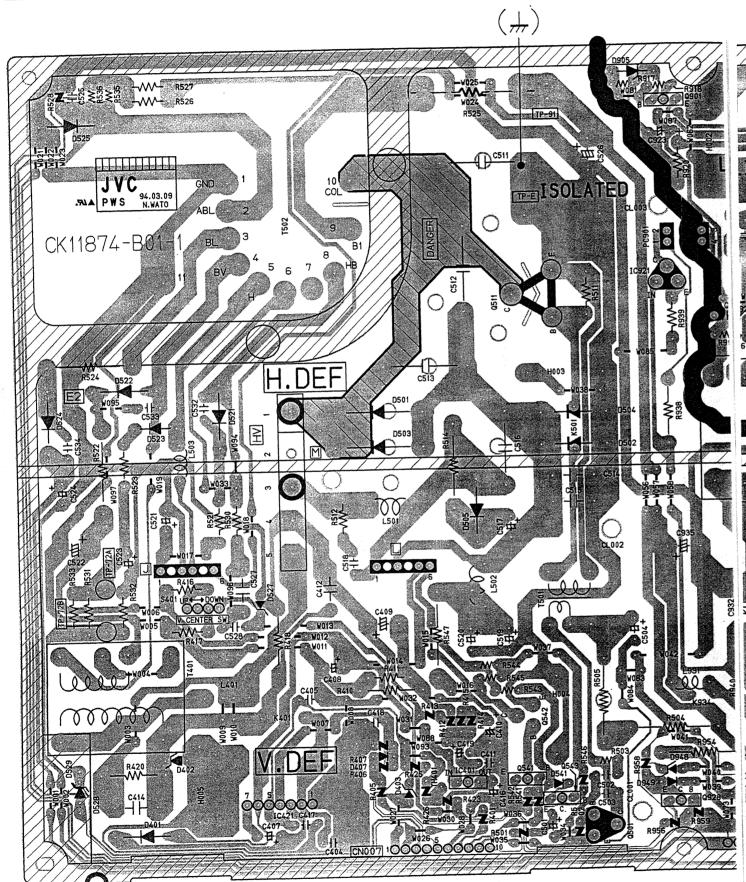




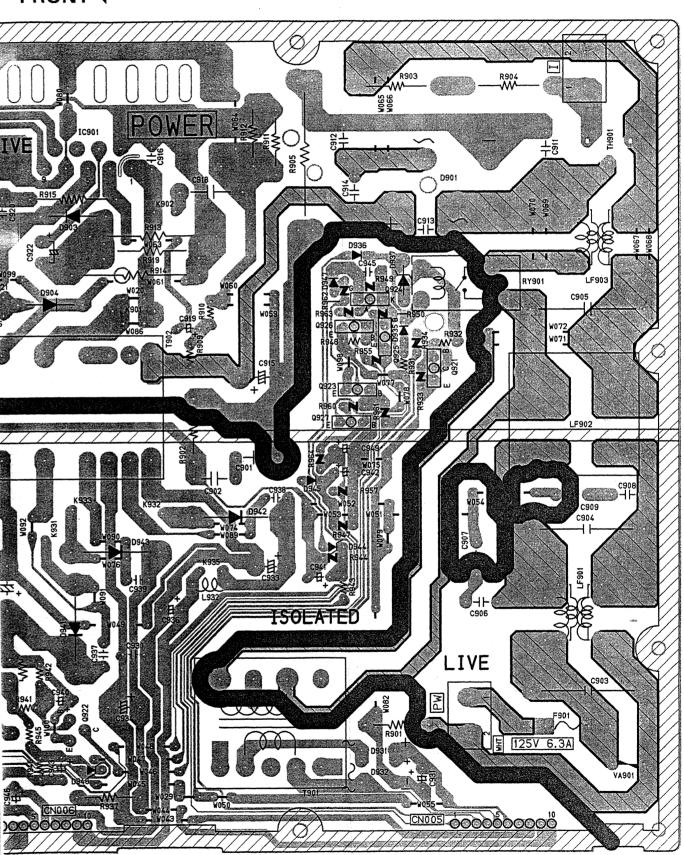
(No.50850) 3-57

3-58 (No.50850)

POWER / DEF. PWB PATTERN (AV-27/31BP5 & AV-31BM5) (SGM-2001A-H2 / SGM-2501A-H2 / SGM-2004A-H2 / SGM-2504A-H2 / SGM-2003A-H2 / SGM-2503A-H2)

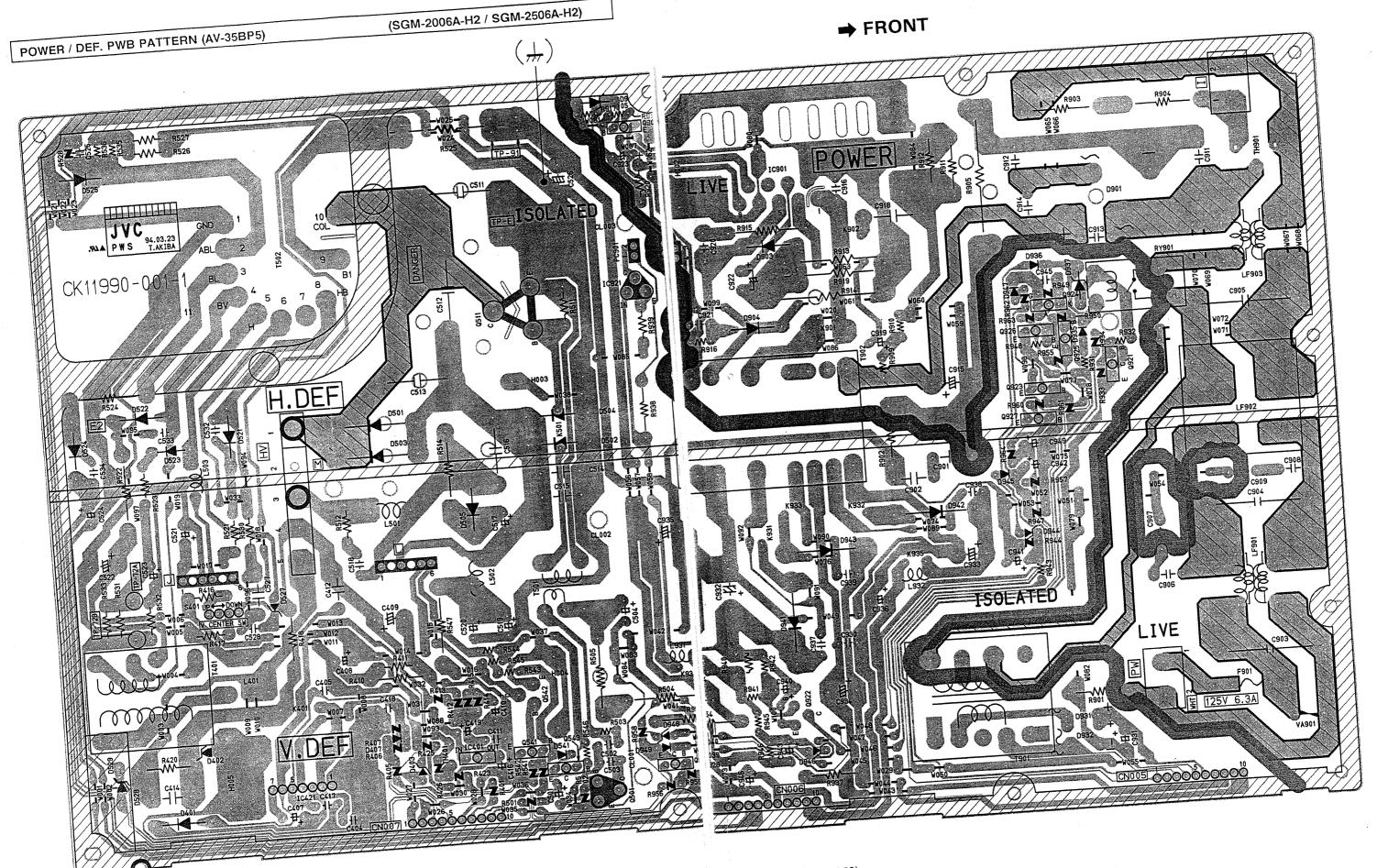






(No.50850) 3-59

3-60 (No.50850)

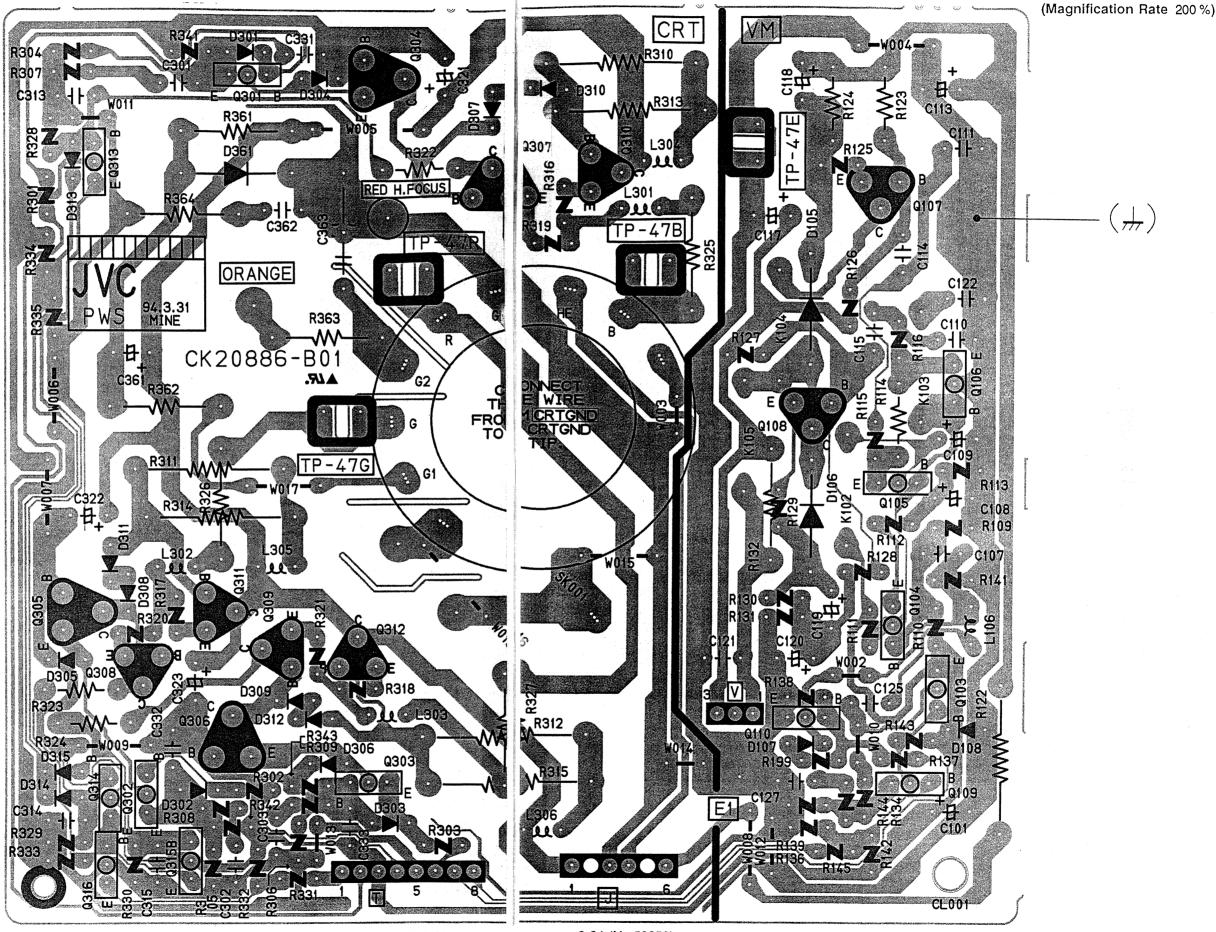


(No.50850) 3-61

3-62 (No.50850)

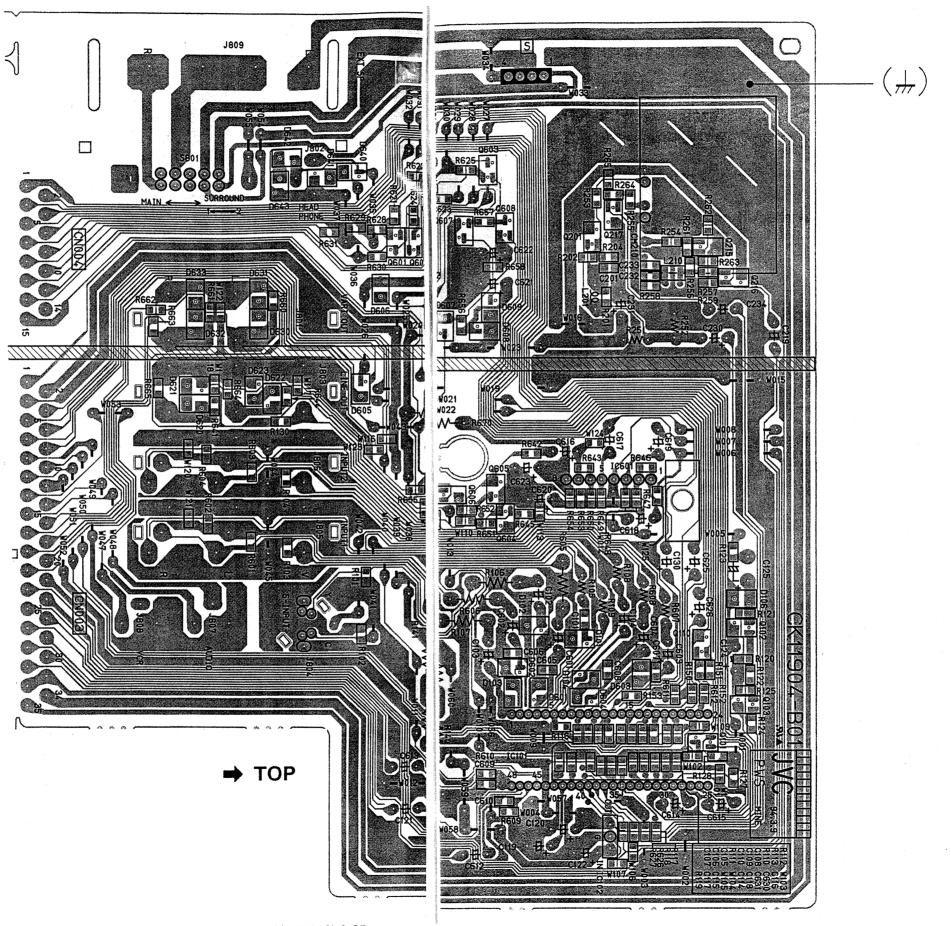
CRT SOCKET PWB PATTERN (AV-35BP5)

(SGM-3006A-H2)



3-64 (No.50850)

(Magnification Rate 128%)

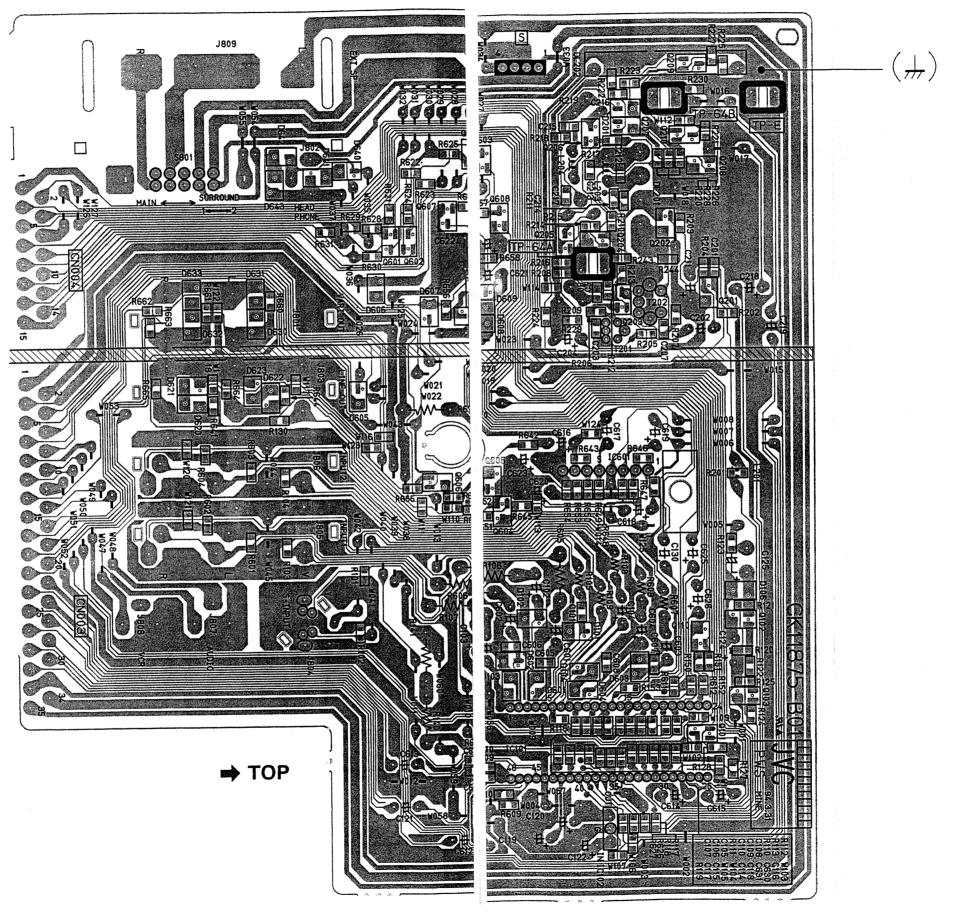


(No.50850) 3-65

3-66 (No.50850)

(SGM-3004A-H2)

(Magnification Rate 128%)

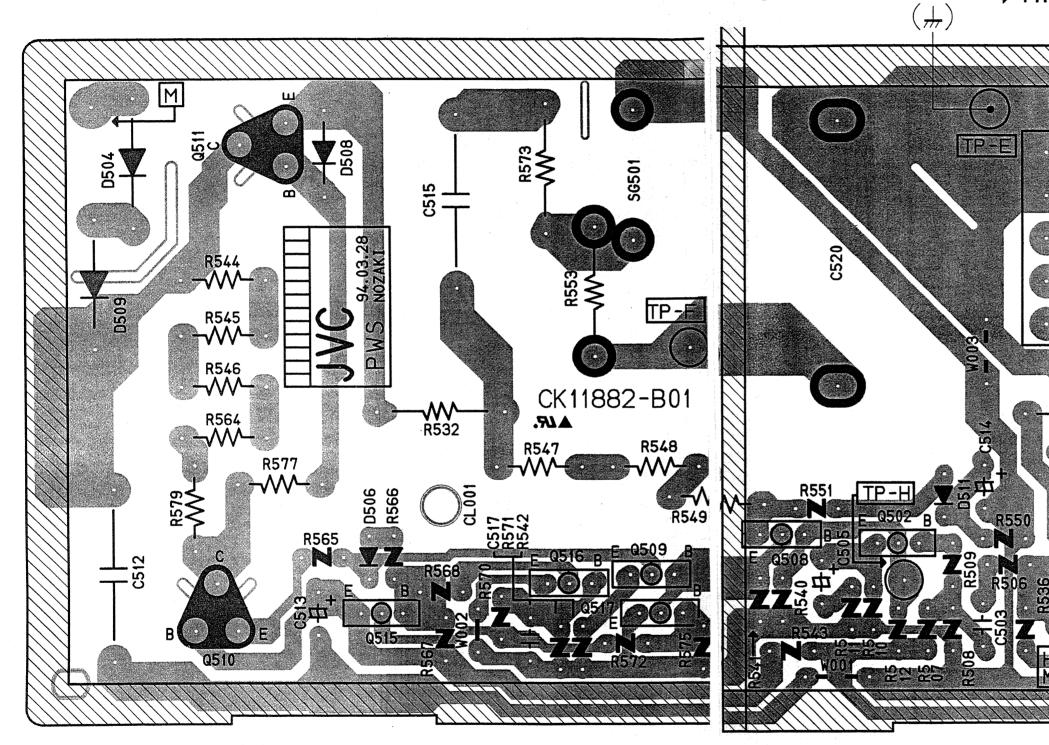


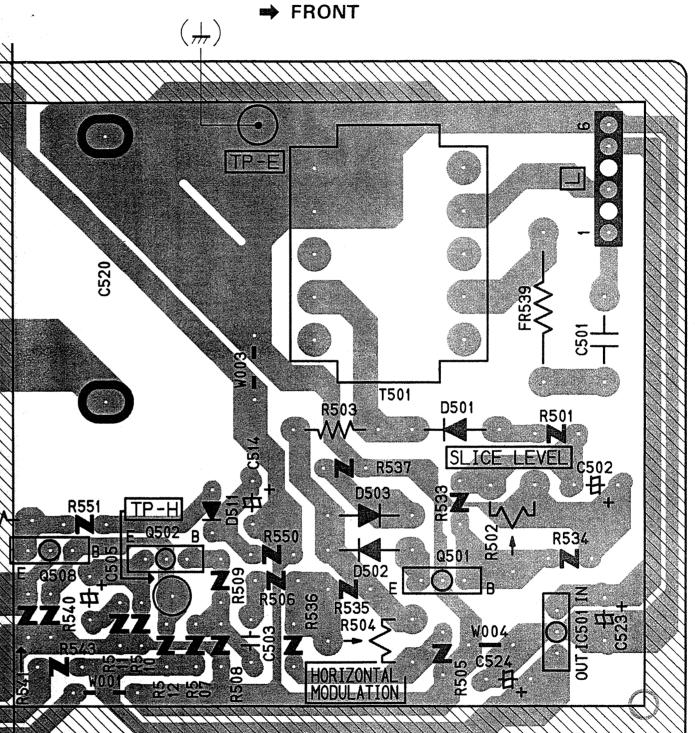
(No.50850) 3-67

3-68 (No.50850)

(SGM-9201A-H2)

(Magnification Rate 230%)

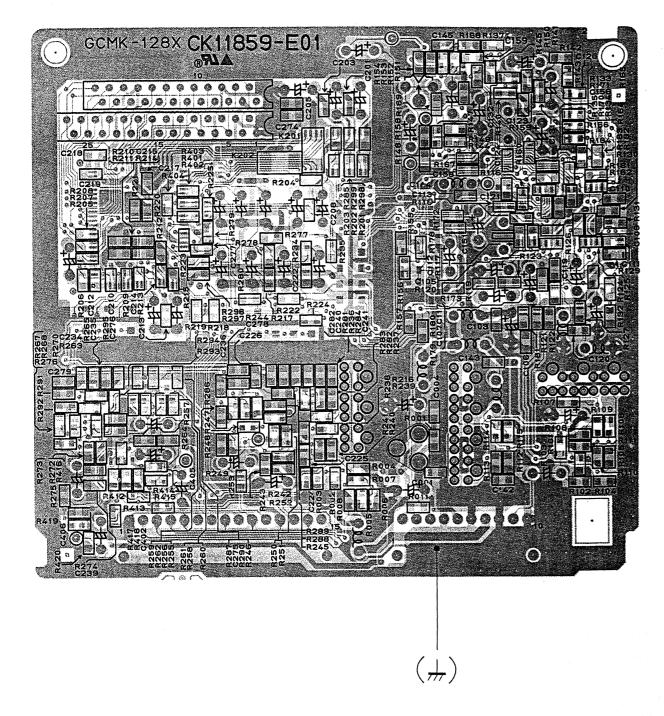




(SGM-P001A-H2)

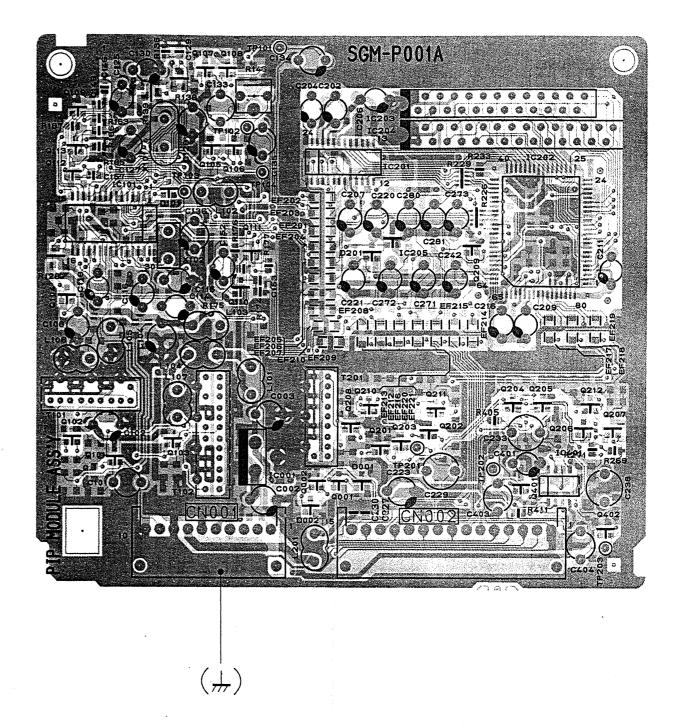
[PARTS SIDE]

(Magnification Rate 150 %)



[SOLDER SIDE]

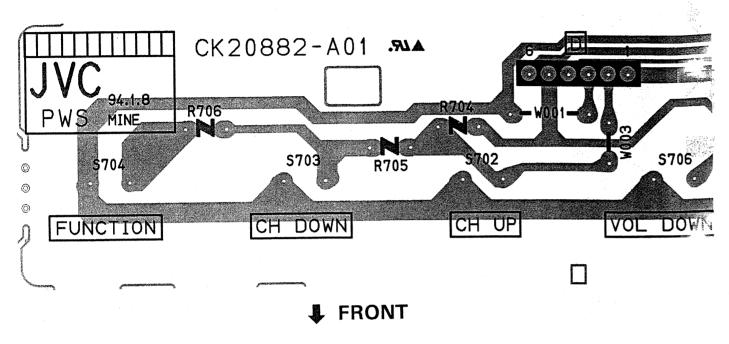
(Magnification Rate 150%)

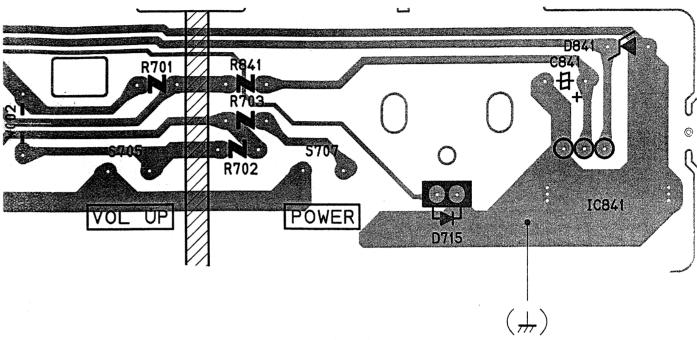


(SGM-4001A-H2)

(Magnification Rate 216 %)

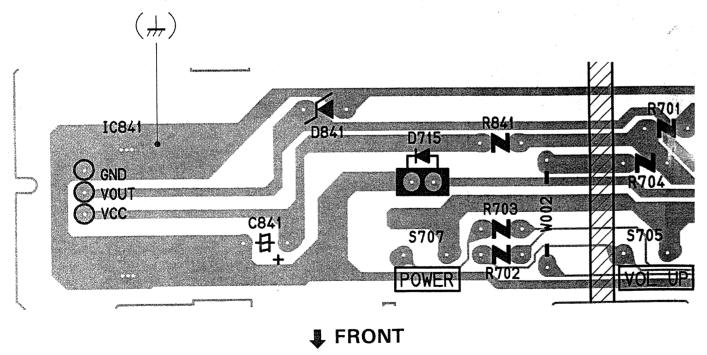
(Magnification Rate 230%)

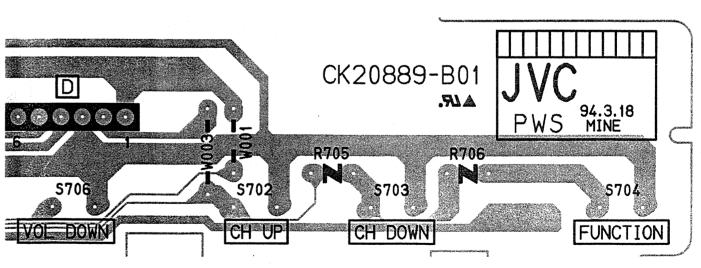




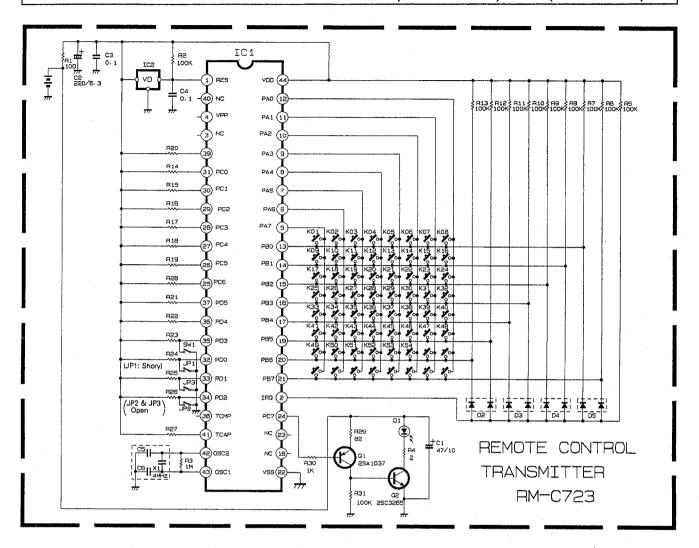
CONTROL PWB PATTERN (AV-35BP5)

(SGM-4004A-H2)



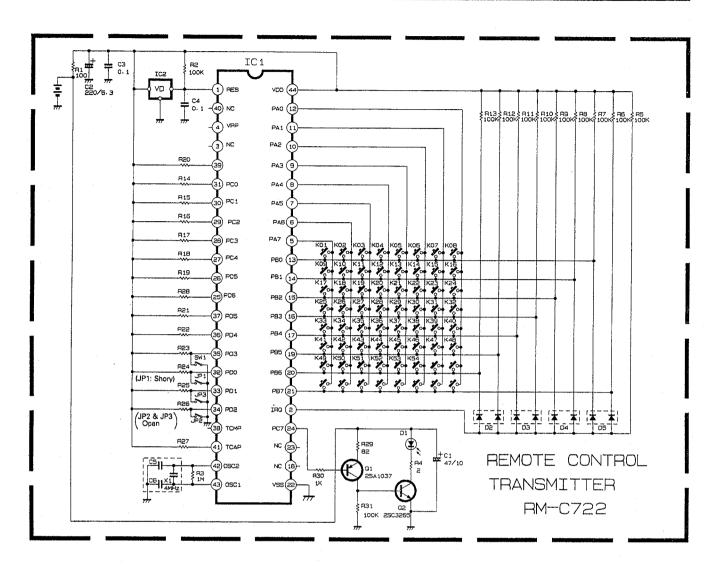


(RM-C723-01-A)



• KEY FUNCTION [RM-C723 (AV-27/31/35BP5)]

No.	Key name	No.	Key name	No.	Key name	No.	Key name
1		14	1	27	0	40	STOP [
2	LIVE / EFFEX	15	2	28	RETURN	41	PAUSE 🗆
3	DISPLAY	16	3	29		42	VCR POWER
4	POWER	17	THEATER / AV STATUS	30	СН —	43	VCR CH -
5		18	4	31	CH +	44	VCR CH+
6	PIP ON/OFF	19	5	32		45	HELP
7	PIP POSITION	20	6	33	MUTE	46	
8	PIP SWAP	21	SLEEP TIMER	34	VOL-	47	
9	CATEGORY PREVIEW	22	7	35	VOL +	48	EXIT
10	PIP SOURSE	23	8	36	REW ⁄ (1	49	MENU △
11	PIP FREEZE	24	9	37	PLAY >	50	MENU 4
12	PIP SIZE	25	TV / VIDEO	38	FF DD	51	MENU D
13	CLOSED CAPTION	26	100+	39	REC O	52	MENU ▽



• KEY FUNCTION [RM-C722 (AV-31BM5)]

No.	Key name	No.	Key name	No.	Key name	No.	Key name
1		14	1	27	0	40	STOP []
2	LIVE / EFFEX	15	2	28	RETURN	41	PAUSE 🗆
3	DISPLAY	16	3	29		42	VCR POWER
4	POWER	17	THEATER / AV STATUS	30	СН —	43	VCR CH -
5		18	4	31	CH +	44	VCR CH+
6		19	5	32		45	HELP
7		20	6	33	MUTE	46	
8		21	SLEEP TIMER	34	VOL-	47	
9	CATEGORY PREVIEW	22	7	35	VOL +	48	EXIT
10		23	8	36	REW ≰	49	MENU Δ
11		24	9	37	PLAY D	50	MENU 4
12		25	TV / VIDEO	38	FF DD	51	MENU ⊳
13	CLOSED CAPTION	26	100+	39	REC O	52	MENU ▽

PARTS LIST

CAUTION

- The parts identified by the A symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.
- As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board.

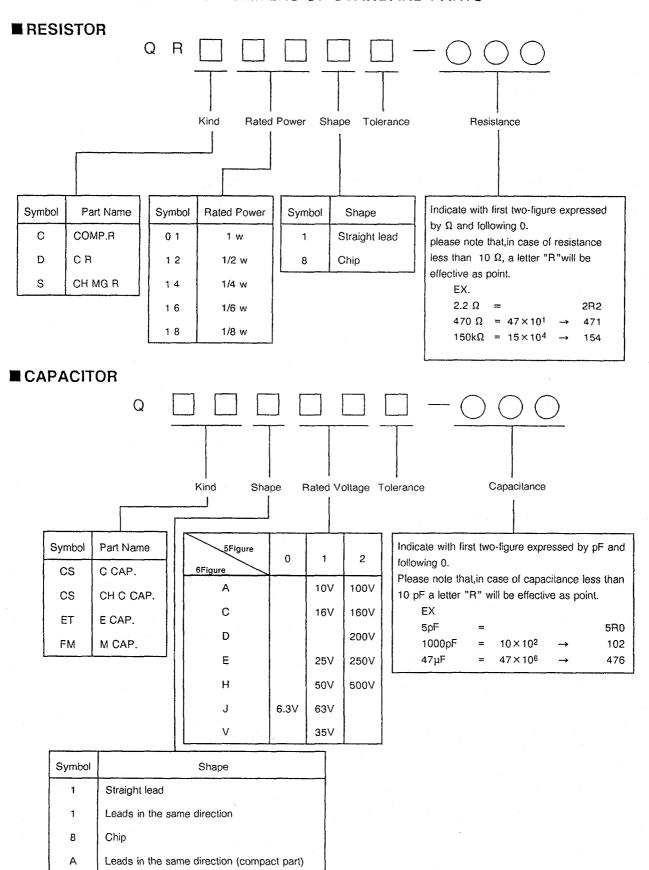
When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS".

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

	RESISTORS	CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	м САР.	Mylar Capacitor
VR	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MFR	Metal Film Resistor	мм сар.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
	กลอเจเบ	CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

				TOLERA	ANCES				
F	G	J	К	M	N	R	Н	Z	Р
± 1%	<u>+</u> 2%	± 5%	<u>+</u> 10%	± 20%	± 30%	+30%	+50%	+80%	+100%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS



USING P.W. BOARD

PWB ASSY	Model	AV-27BP5	AV-31BP5	AV-31BM5	AV-35BP5
BAAINI DIAKO	MAIN PWB		SGM-1004A-H2	SGM-1003A-H2	SGM-1006A-H2
MAIN PWB		1	1	1	1
DOWED DEE DWD	us	SGM-2001A-H2	SGM-2004A-H2	SGM-2003A-H2	SGM-2006A-H2
POWER DEF PWB	CA	SGM-2501A-H2	SGM-2504A-H2	SGM-2503A-H2	SGM-2506A-H2
US		SGM-3001A-H2	SGM-3003A-H2	SGM-3003A-H2	SGM-3006A-H2
CRT SOCKET PWB	CA	1	1	1	î
CONTROL DWD	us	SGM-4001A-H2	SGM-4001A-H2	SGM-4001A-H2	SGM-4004A-H2
CONTROL PWB	СА	1	↑	1	1
AV TEDAL DWD	us	SGM-8001A-H2	SGM-8001A-H2	SGM-8003A-H2	SGM-8004A-H2
AV TERMI. PWB	CA	1	1	1	1
DBF PWB	us				SGM-9201A-H2
DBF PWB	CA				1
DID MODILI E DWD	us	SGM-P001A-H2	SGM-P001A-H2		SGM-P001A-H2
PIP MODULE PWB CA		î	Ť.		1
REMOTE CONTROL	us	RM-C723-01-A	RM-C723-01-A	RM-C722-01-A	RM-C723-01-A
UNIT	CA	1	1	1	1

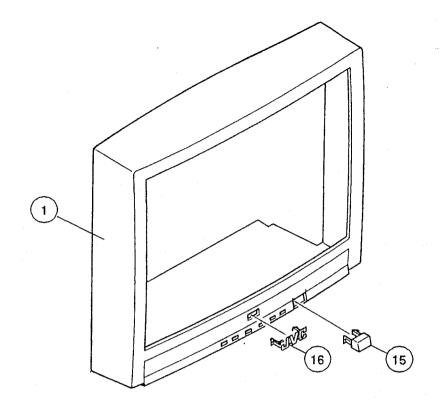
EXPLODED VIEW PARTS LIST (AV-27BP5)

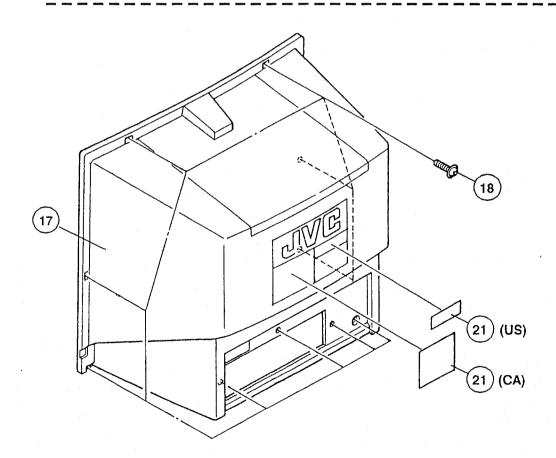
Δ	Ref.No.	Part No.	Part Name	Description	Local
Δ	1	CM12619-00D-MA	FRONT CABI ASSY		+
Δ	2	A68KRQ58X(D)	PICTURE TUBE	V01	*
\triangle	2 3	CE20277-00A	DEF YOKE	DY01	*
Δ	4	CE41329-00CJ2	DEG. COIL	L01	*
	5	A75034-B	P.C.MAGNET		
	6	AAM4003-00A-C	WEDGE ASSY	$(\times 4)$	*
	7	CHGB0015-0D-FA	BRAIDED ASSY	•	*
\triangle	8	CEBSM12D-05KJ4	SPEAKER	(×2)(SP01,SP02)	*
	9	CM35776-001-H	PUSH KNOB		*
	10	CM12537-B01-VA	CHASSIS BASE		*
	11	CM22670-001-A	CONTROL BASE		*
Δ	12	CJ27898-00AJ1	FBT	T2502	*
فسيبه	13	CHGB0016-0C-FA	SUB BRAIDED ASSY		*
	15	CM35775-A01-H	REMOCON WINDOW		*
	16	CM43094-006-H	JVC MARK		*
Δ	17	CM12415-091-MA	REAR COVER		*
	18	GBSB4016N	TAPPING SCREW	(×10)	*
Δ	19	OMP14C0-200J3	POWER CORD	` '	*
Δ	20	CEEM245-B02	TUNER	TU1001	*
Δ	21	CM44889-005-A	RATING LABEL	(US)	*
Δ	21	CM20925-A12-A	RATING LABEL	(CA)	*
<u></u> -					

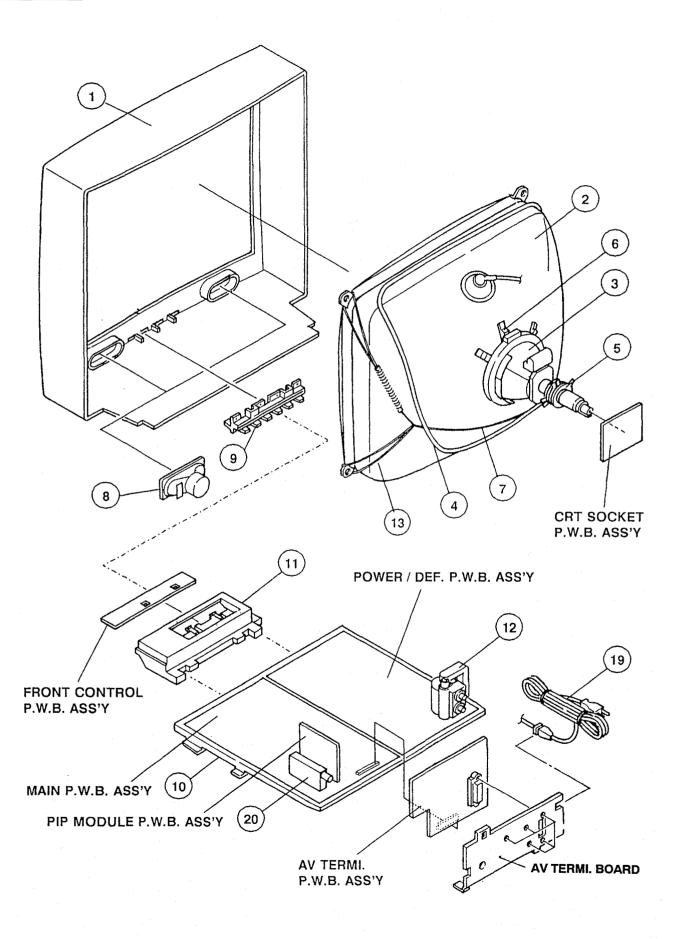
EXPLODED VIEW PARTS LIST (AV-31BP5 / AV-31BM5)

ΔI	Ref.No.	Part No.	Part Name	Description	Local
Δ	1	CM12618-00A-MA	FRONT CABI ASSY		*
$\overline{\mathbb{A}}$	2	MA78JUA069X	PICTURE TUBE	V01	*
△ △ △	3	CE20273-A0A	DEF YOKE	DY01	*
Ā	4	CELD028-003J3	DEG. COIL	L01	*
	5	A75034-B	P.C.MAGNET		
	6	AAM4003-00A-C	WEDGE ASSY	$(\times 4)$	*
	7	CHGB0015-0E-FA	BRAIDED ASSY	•	*
\triangle	8	CEBSM12D-05KJ4	SPEAKER	(×2)(SP01,SP02)	*
	9	CM35776-001-H	PUSH KNOB		*
	10	CM12537-B01-VA	CHASSIS BASE		*
	11	CM22670-001-A	CONTROL BASE		*
<u>/</u> 1\	12	CJ27898-00AJ1	FBT	T2502	*
	13	CHGB0016-0D-FA	SUB BRAIDED ASSY		*
	15	CM35983-001-H	REMOCON WINDOW		*
	16	CM43094-006-H	JVC MARK		*
᠕	17	CM12418-031-MA	REAR COVER		*
	18	GBSB4016N	TAPPING SCREW	$(\times 13)$	*
\triangle	19	OMP14C0-200J3	POWER CORD	•	*
$\overline{\Delta}$	20	CEEM245-B02	TUNER	TU1001	*
Δ	21	CM44889-005-A	RATING LABEL	(US)	*
$\stackrel{\square}{\triangle}$	21	CM20925-A12-A	RATING LABEL	(CA)	*
دین					

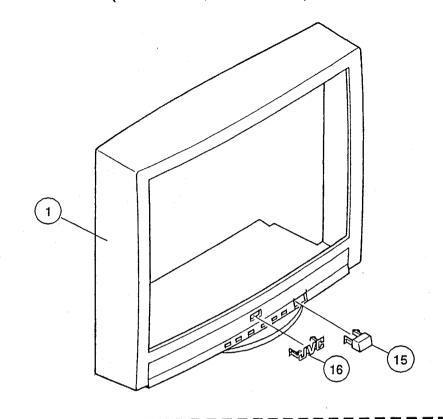
EXPLODED VIEW (AV-27BP5)

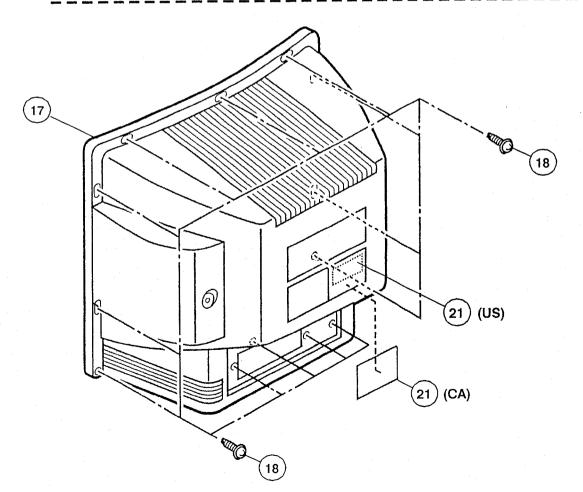


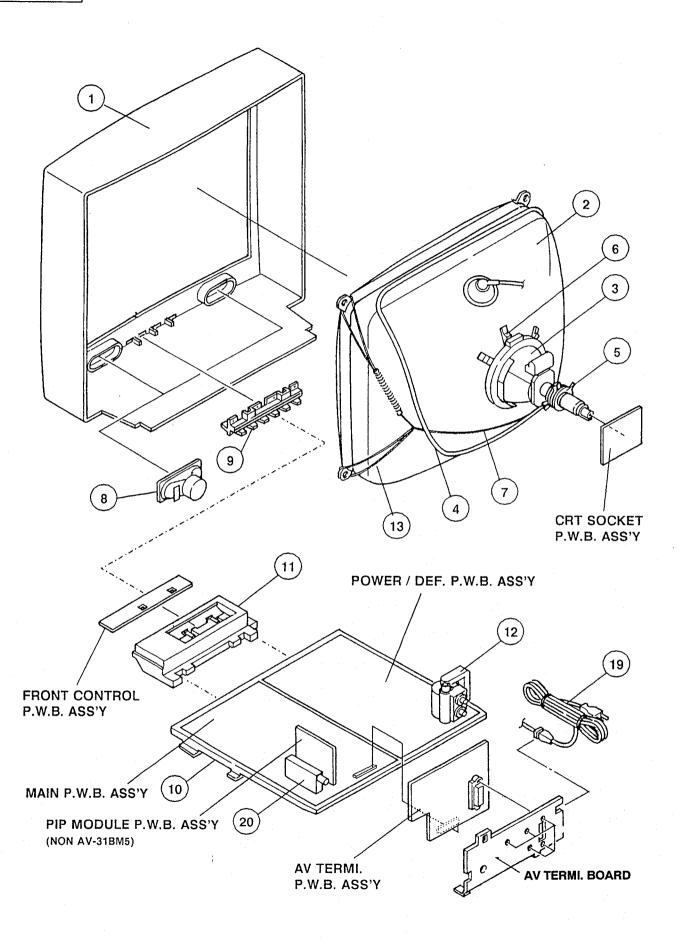




EXPLODED VIEW (AV-31BP5, AV-31BM5)







EXPLODED VIEW PARTS LIST (AV-35BP5)

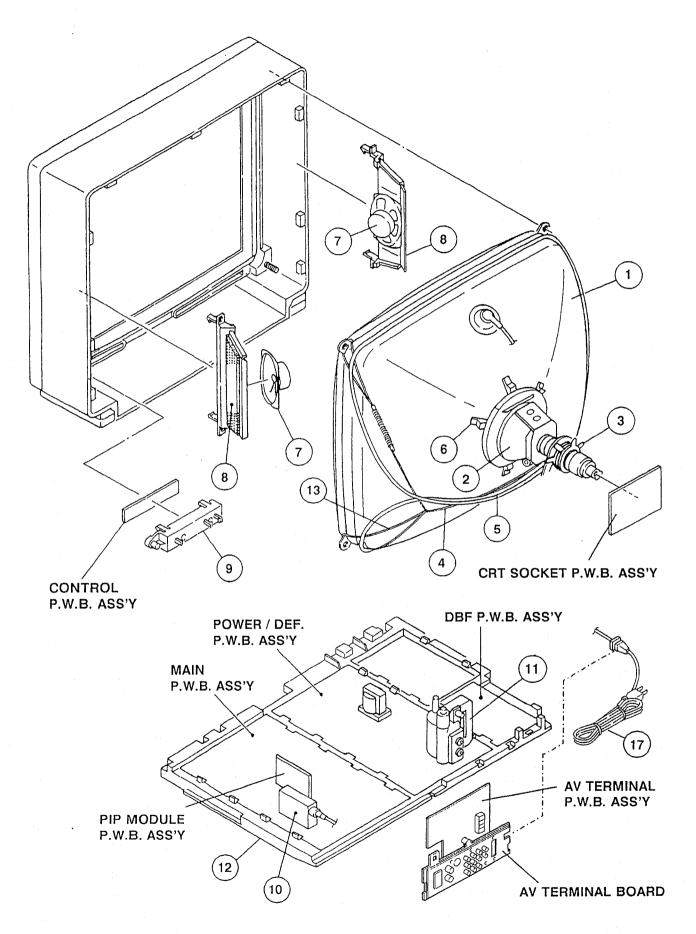
Local	Description	Part Name	Part No.	Ref.No.	∆ R
*	V01	PICTURE TUBE	A89LFL50X(V)	1	\triangle
*	DY01	DEF YORK	CE20272-AÒA	2	$\overline{\mathbb{A}}$
*		P.C.MAGNET	CE42419-00A	3	
*		BRAIDED ASSY	CHGB0009-0D-FA	4	
*	L01	DEG. COIL	CELD032-001J3	5	Δ
*	$(\times 4)$	WEDGE ASSY	CE40764-00A	6	
*	(×2)SP01,SP02	CONE SPEAKER	CEBSN12D-03KJ3	7	Δ
Ψ.	(×2)	SPEAKER GRILLE	CM34678-B0A-KD	8	Δ
*		CONTROL BASE(B)	CM22065-A01-VA	9	
*	TU1001	TUNER	CEEM245-B02	10	\triangle
*	T2502	HVT	CE42485-001KJ1	11	Δ
*		CHASSIS BASE	CM12539-B01-VA	12	
*		SUB BRAIDED ASSY	CHGB0016-0D-FA	13	
*		FRONT PANEL ASSY	CM12170-00H-MA	14	Α
*		REAR COVER	CM11712-A41-MA	15	\triangle
*	$(\times 15)$	TAPPING SCREW	GBSB4016N	16	
*		POWER CORD	OMP14C0-200J3	17	Δ
*	(US)	RATING LABEL	CM44889-005-A	18	$\overline{\Delta}$
*	(CA)	RATING LABEL	CM20925-A12-A	19	$\overline{\Delta}$
*		HYATT LABEL	CM47691-001-A	20	_
. *		BODY COVER ASSY	CM11787-A0B-MA		Δ
*		FOOT ASSY(R)	CM21755-00E-KD	23	Δ
*		FOOT ASSY(L)	CM21755-00F-KD	24	Δ
*		REMOCON WINDOW	CM33754-001-V0	25	
*		CONTROL PANEL	CM11791-A03-VA	26	
*		PUSH KNOB ASSY	CM33823-00B-KH	27	
*		BRAND MARK	CM46084-A01	28	

EXPLODED VIEW (AV-35BP5) 24 (16 (CA)

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18

(US)



(No.50850) 4-11

PRINTED WIRING BOARD PARTS LIST MAIN PW BOARD ASS'Y [SGM-1001A-H2 (AV-27BP5)]

Λ	Symbol No.	Part No.	Part Name	Description	Local
<u> </u>	Symbol No.	rait NO.	rai C Ivame	Description	Local
	V A R I A B R1131 R1142	LE RESIST QVPE611-102HZ QVPE611-103HZ	O R V R(DET.OUT LEVEL) V R(NOISE)	1k Ω B 10k Ω B	
•	RESIST R1001 R1155 R1156 R1601 R1659 R1661 R1792 R1806	QRD149J-150S NRVA02D-1502NY NRVA02D-1501NY QRD149J-100S QRD149J-2R2S QRD149J-2R2S QRD149J-2R2S QRD123J-101SX NRVA02D-1502NY	C R CHIP MF R CHIP MF R C R C R C R C R C R C R C R C R C R C	15 Ω 1/4W J 15k Ω 1/10W \pm 0.5% 1.5k Ω 1/10W \pm 0.5% 10 Ω 1/4W J 2.2 Ω 1/4W J 2.2 Ω 1/4W J 100 Ω 1/2W J 15k Ω 1/10W \pm 0.5%	
2:5	R1985	QRG039J-100A	OM N	10 S2 SW 5	
	C A P A C I C1005 C1009-12 C1014 C1053 C1101 C1104 C1108 C1109-10	T O R QFLC1HK-103MZ NCB21HK-102AY NCB21HK-102AY NCB21HK-103AY NCB21HK-103AY NCB21HK-472AY QFV41HJ-224M NCB21HK-103AY	M CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP CAP.	0.01 μ F 50V K 1000 p F 50V K 1000 p F 50V K 0.01 μ F 50V K 0.01 μ F 50V K 4700 p F 50V K 0.22 μ F 50V J 0.01 μ F 50V K	
	C1113 C1119 C1125 C1127 C1128 C1133 C1139 C1140	NCB21HK-103AY NCF21HZ-104AY NCT03CH-220AY NCB21HK-103AY NCT03CH-820AY NCB21HK-102AY NCB21HK-103AY NCT03CH-101AY	CHIP CAP. CHIP C CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.	0.01 μ F 50V K 0.1 μ F 50V Z 22 p F 1600V H 0.01 μ F 50V K 82 p F 1600V H 1000 p F 50V K 0.01 μ F 50V K	
	C1141 C1142 C1143 C1144 C1145 C1146-47 C1153 C1154	NCB21EK-683AY NCB21HK-102AY NCB21HK-103AY QEB61HM-104MZ NCB21HK-332AY NCB21HK-103AY QFV71HJ-104MZ QEN61HM-105Z	CHIP CAP. CHIP CAP. CHIP CAP. E CAP. CHIP CAP. CHIP CAP. TF CAP. BP E CAP.	0.068 μ, F 25V K 1000 p F 50V K 0.01 μ F 50V K 0.1 μ F 50V M 3300 p F 50V K 0.01 μ F 50V K 0.1 μ F 50V J 1 μ F 50V M	
	C1155 C1156 C1157 C1158 C1160 C1164 C1165 C1167-68	QEN61HM-475Z QEN61CM-106Z QEB61HM-104MZ QFLC1HK-473MZ QFV71HJ-104MZ QEE61CK-335BZ QEE61CK-106BZ QEN61CM-106Z	BP E CAP. BP E CAP. E CAP. M CAP. TF CAP. TAN.CAP. TAN.CAP. BP E CAP.	4.7 μ F 50V M 10 μ F 16V M 0.1 μ F 50V M 0.047 μ F 50V K 0.1 μ F 50V J 3.3 μ F 16V K 10 μ F 16V K 10 μ F 16V M	
	C1201 C1202 C1241 C1271 C1273 C1274 C1275 C1277	NCT03CH-470AY QEN61CM-226Z NCB21HK-222AY QEN61HM-475Z NCT03CH-100AY QEN61HM-474Z NCB21HK-102AY NCB21HK-472AY	CHIP CAP. BP E CAP. CHIP CAP. BP E CAP. CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP.	47 p F 1600V H 22 μ F 16V M 2200 p F 50V K 4.7 μ F 50V M 10 p F 1600V H 0.47 μ F 50V M 1000 p F 50V K 4700 p F 50V K	
	C1278 C1331 C1332 C1333 C1334	NCS21HJ-221AY NCT03CH-680AY NCB21HK-102AY NCT03CH-8R0AY NCB21HK-103AY	CHIP C CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.	220 p F 50V J 68 p F 1600V H 1000 p F 50V K 8 p F 1600V H 0.01 µ F 50V K	

△ Symbol No.	Part No.	Part Name	Description	Local
C A P A C 1 C1335 C1336 C1337 C1373 C1390 C1392 C1393 C1398~99	T T O R QFV71HJ-104MZ NCT03CH-121AY NCT03CH-221AY QFV71HJ-104MZ NCF21HZ-104AY NCS21HJ-221AY NCT03CH-150AY NCF21HZ-104AY	TF CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP C CAP. CHIP C CAP. CHIP C CAP. CHIP CAP. CHIP CAP.	0.1 µ F 50V 120 p F 1600V 220 p F 1600V 0.1 µ F 50V 0.1 µ F 50V 220 p F 50V 15 p F 1600V 0.1 µ F 50V	J H H J Z J H Z
C1451-52 C1453 C1562-63 C1564 C1566 C1575 C1577	QFV71HJ-224MZ QFLC1HJ-223MZ QFLC1HJ-103MZ NCT03CH-120AY NCB21HK-103AY QFV71HJ-474MZ NCB21HK-102AY NCS21HJ-271AY	TF CAP. M CAP. M CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP CAP. CHIP CAP.	$\begin{array}{ccccc} 0.22 \ \mu \ F & 50V \\ 0.022 \ \mu \ F & 50V \\ 0.01 \ \mu \ F & 50V \\ 12 \ p \ F & 1600V \\ 0.01 \ \mu \ F & 50V \\ 0.47 \ \mu \ F & 50V \\ 1000 \ p \ F & 50V \\ 270 \ p \ F & 50V \end{array}$	J J H K J K
C1602 C1604-05 C1606 C1607 C1608-09 C1610 C1619-20 C1621	QFV71HJ-104MZ QFN31HK-222ZJ1 NCB21HK-102AY QFV71HJ-104MZ NCB21HK-682AY QFV71HJ-104MZ QEN61CM-226Z NCS21HJ-681AY	TF CAP. M CAP. CHIP CAP. TF CAP. CHIP CAP. TF CAP. BP E CAP. CHIP C CAP.	0.1 µ F 50V 2200 p F 50V 1000 p F 50V 0.1 µ F 50V 6800 p F 50V 0.1 µ F 50V 22 µ F 16V 680 p F 50V	J K K J K J M
C1622 C1652 C1654 C1662 ⚠ C1663 C1664 ⚠ C1665 ὧ C1669	QFLC1HJ-823MZ NCS21HJ-221AY NCS21HJ-221AY QFV71HJ-124MZ QETC1CM-108Z QFV71HJ-124MZ QETC1CM-108Z QETC1CM-108Z QETB1VM-108	M CAP. CHIP C CAP. CHIP C CAP. TF CAP. E CAP. TF CAP. E CAP. E CAP. E CAP.	$\begin{array}{cccc} 0.082~\muF & 50V \\ 220~pF & 50V \\ 220~pF & 50V \\ 0.12~\muF & 50V \\ 1000~\muF & 16V \\ 0.12~\muF & 50V \\ 1000~\muF & 16V \\ 1000~\muF & 35V \\ \end{array}$	J J J M J M
C1701 C1702 C1704 C1708 C1709-11 C1713-14 C1717 C1721	QEB61HM-104MZ NCB21HK-102AY NCB21EK-683AY NCT03CH-180AY NCT03CH-330AY NCB21HK-102AY NCB21EK-683AY NCB21HK-223AY	E CAP. CHIP CAP.	$\begin{array}{ccccc} 0.1~\mu~F & 50V \\ 1000~p~F & 50V \\ 0.068~\mu~F & 25V \\ 18~p~F & 1600V \\ 33~p~F & 1600V \\ 1000~p~F & 50V \\ 0.068~\mu~F & 25V \\ 0.022~\mu~F & 50V \\ \end{array}$	M K K H H K K K
C1801-02 C1803 C1804 C1807 C1808 C1811 C1813 C1825-26	NCB21HK-332AY NCB21HK-153AY QEN61HM-105Z NCT03CH-470AY NCB21HK-332AY NCT03CH-101AY NCB21HK-103AY NCT03CH-330AY	CHIP CAP. CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.	3300 p F 50V 0.015 µ F 50V 1 µ F 50V 47 p F 1600V 3300 p F 50V 100 p F 1600V 0.01 µ F 50V 33 p F 1600V	K K M H K H K H
C1827-29 C1830 C1831 C1852 C1984 C1990	NCT03CH-331AY NCT03CH-101AY NCB21HK-682AY NCT03CH-8R0AY QEHC1CM-107MZ QETC1HM-108Z	CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. E CAP.	330 p F 1600V 100 p F 1600V 6800 p F 50V 8 p F 1600V 100 µ F 16V 1000 µ F 50V	H K K H M
T R A N S F T1111 T1115 T1116 T1331 T1801	ORMER CE40123-501 CELT003-105 CELT003-106 CE41301-001J1 CE42470-001	AFC TRANSF CW TRANSF SIF TRANSF BAND PASS FILTER OSC COIL		
C O I L L1001	CELP055-150Z	PEAKING COIL	15 μ Η	

Δ	Symbol No.	Part No.	Part Name	Description	Local
	C O I L L1102 L1105 L1106 L1109 L1121 L1201 L1203 L1331 L1332 L1701-02 L1802	CE41131-R47Y CE41131-R47Y CE41131-R56Y CE41131-2R2Y CE41131-150Y CELP055-6R8Z CELP055-470Z CELP055-820Z CELP055-3R9Z CELP055-4R7Z CELP055-2R2Z	CHIP INDUCTOR CHIP INDUCTOR INDUCTOR CHIP INDUCTOR CHIP INDUCTOR PEAKING COIL	6.8 µ H 47 µ H 82 µ H 3.9 µ H 4.7 µ H 2.2 µ H	
			FLAKING COIL	2.2 μπ	
	D I O D E D1001 D1262 D1265 D1271 D1281-82 D1331-32 D1351-53 D1354	MA3330(L)-W RD9.1ES(B2)-T2 MA151K-W MA151K-W MA3068(M)-W MA151K-W MA151K-W MA151K-W	ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
	D1355 D1356 D1357 D1358 D1359 D1372 D1575-76 D1651-52	MTZJ4.3(A)-T2 MA165-T2 MTZJ4.3(A)-T2 MA165-T2 MTZJ4.3(A)-T2 MA151K-W MA151K-W RD33E(B1)-T2	ZENER DIODE SI.DIODE ZENER DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE ZENER DIODE		
	D1701-02 D1703-04 D1705-07 D1708-09 D1721 D1723-24 D1790-92 D1797	MA3062(M)-W MA151K-W MA3068(M)-W MA3062(M)-W MA151K-W MA151K-W MA151K-W MTZJ15(A)-T2	ZENER DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE		
	D1851-53 D1871 D1872	MA151K-W MA152WK-W MA151K-W	SI.DIODE DIODE SI.DIODE		
	T R A N S I 01101 01103 01105 01201 01202 01231-32 01261 01271	STOR 2SC4502-T 2SA1022(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SA1022(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SA1022(BC)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q1272 Q1331-34 Q1351-53 Q1371 Q1374 Q1375 Q1385 Q1386	DTC323TK-W 2SC2778(BC)-W 2SA1022(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SA1022(BC)-W 2SA1022(BC)-W 2SC2778(BC)-W	DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q1443 Q1561 Q1562 Q1575 Q1576 Q1651	2SC2778(BC)-W 2SC2778(BC)-W 2SA1022(BC)-W 2SC2778(BC)-W 2SA1022(BC)-W 2SC2778(BC)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		

Δ	Symbol No.	Part No.	Part Name	Description	Local
	T R A N S I Q1681 Q1682-83 Q1701 Q1801 Q1802-03 Q1851 Q1853-54 Q1855 Q1856-58 Q1871-76 Q1877	S T O R DTA144TK-W DTC323TK-W 2SC2778(BC)-W 2SA1022(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W 2SC2778(BC)-W	DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR		
<u></u>	I C IC1101 IC1151 IC1191 IC1201 IC1601 IC1651 IC1681 IC1701	LA7577N ATT1852ACT AN78L09-Y JCC1003B ATT1853CT MC13516T2 BA15218N MN1876466JKN1	I.C(MONO-ANA) I C IC I.C(MONO-ANA) IC I.C(MONO-ANA) IC I.C(MONO-ANA) I.C		
Δ	IC1702 IC1703 IC1791 IC1801 IC1802 IC1803 IC1871 IC1981	AT24C08/27BP5 MN1280-Q AN78L05-Y LC7458B-04 LA7945N MN1280-Q AN5860 LM2940CT-12	IC (SERVICE) I.C(DIGI-MOS) I.C. IC I.C(MONO-ANA) I.C(DIGI-MOS) I.C.(M) I.C(MONO-ANA)		
Δ	IC1982 IC1983	KIA7809PI AN78L05-Y	I C I.C.		
	OTHERS CF1002 CF1102 CF1106 CF1701 CF1801 CN1003 K1702-05 K1801-04	FTP47.25MA CE41505-001 SFSH4.5MCB CST8.00MT CSA12.0MT CHA401N-35P-J CE42050-001Z CE42050-001Z	CERAMIC TRAP CERAMIC FILTER CERAMIC FILTER CER.RESONATOR CER.RESONATOR HQF PLUG CORE CORE		
	K1871 SF1101 SF1102 X1391	CE41433-001Z CE41031-202 CE42377-201 CE41651-001Z	BEADS CORE SAW FILTER SAW FILTER X-TAL		

POWER / DEF PW BOARD ASS'Y [SGM-2001A-H2 (AV-278P5)]

Regarding the POWER DEF PW Board Ass'y [SGM-2501A-H2] for the model for canada, refer to page 4-18.

				· -
⚠ Symbol No.	Part No.	Part Name	Description	Local
RESIST R2410 R2418 R2503 AR2504 AR2505 AR2512 R2514 AR2521	QRX019J-R82S QRG019J-221S QRD123J-562SX QRG039J-332A QRG039J-332A QRD121J-681SY QRG039J-822A QRD149J-1R0S	MF R OM R C R OM R OM R C R OM R C R OM R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
↑ R2522 ↑ R2523 ↑ R2524 ↑ R2525 ↑ R2531 ↑ R2532 ↑ R2901 ↑ R2905	QRX039J-1R5A QRD129J-4R7S QRX039J-3R3A QRF074K-1R8 QRV141F-5361Y QRV141F-4871Y QRC121K-275UZ QRF104K-1R0	MF R C R MF R UNF R MF R MF R COMP.R UNF R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
R2909 R2911-12 R2913-14 R2915 R2916 R2917 R2918 R2931	QRD123J-274SX QRX029J-R22A QRG039J-330 QRG029J-330 QRD123J-821SX QRD123J-153SX QRD123J-181SX QRD123J-121SX	C R MF R OM R OM R C R C R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
R2937 A R2938 A R2940 R2941 A R2943 A R2944 R2948 A R2954	QRG019J-152S QRG019J-223S QRZ0095-R39 QRD123J-272SX QRD123J-223SX QRD161J-223Y QRD123J-182SX QRG029J-223	OM R OM R UNF R C R C R C R C R C R C R OM R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C A P A C I ↑ C2407 ↑ C2408 C2410 C2412 C2417 ↑ C2419 C2504 ↑ C2511	T O R QETC1VM-107Z QETB1VM-108 QEM61EK-335MZ QFN32DJ-104J1 QFN31HJ-102ZJ1 QETC1HM-476Z QETC2CM-105Z QFZ0117-2001S	E CAP. E CAP. E CAP. M CAP. M CAP. E CAP. E CAP. E CAP.	100 µF 35V M 1000 µF 35V M 3.3 µF 25V K 0.1 µF 200V J 1000 pF 50V J 47 µF 50V M 1 µF 160V M 2000 pF1.4kVH ±2.5%	
△ C2512 △ C2513 △ C2514 △ C2516 C2517 △ C2518 C2519-20 △ C2521	QFZ0117-6201S QFZ0117-6201S QFN32DK-104J1 QFZ0119-434S QETC2EM-225Z QCY32HK-561RZ QEM61HK-475MZ QETB2EM-336	MPP CAP. MPP CAP. M CAP. MPP CAP. E CAP. CH C CAP. E CAP. E CAP.	$\begin{array}{llllllllllllllllllllllllllllllllllll$	
⚠ C2522 ⚠ C2523 ⚠ C2524 C2525 ⚠ C2526 C2528 ⚠ C2901 ⚠ C2902	QETB1VM-228 QETC1VM-107Z QETC1CM-477Z QFV71HJ-104MZ QETB2CM-227 QFN32DJ-222J1 QCZ9029-103M QCZ9029-103M	E CAP. E CAP. E CAP. TF CAP. E CAP. M CAP. C CAP.	2200 µ F 35V M 100 µ F 35V M 470 µ F 16V M 0.1 µ F 50V J 220 µ F 160V M 2200 p F 200V J 0.01 µ FAC125V M 0.01 µ FAC125V M	
⚠ C2903 ⚠ C2904 ⚠ C2911 ⚠ C2912	QFZ9036-104M QFZ9036-104M QCZ9033-102A QCZ9033-102A	M.F.CAP. M.F.CAP. C CAP. C CAP.	0.1 μ FAC250V M 0.1 μ FAC250V M 1000 p FAC125V K 1000 p FAC125V K	

⚠ Symbol No.	Part No.	Part Name	Description	Local
C A P A C 1 ↑ C2913 ↑ C2914 ↑ C2915 C2918 C2920 C2921 C2922 C2922 C2923	T O R QCZ9033-102A QCZ9033-102A QEZ0145-687R QFZ0121-272S QFN32DK-333J1 QFN31HJ-222ZJ1 QEHC2AM-107MZ QEHC1HM-336MZ	C CAP. C CAP. E CAP. MPP CAP. M CAP. M CAP. E CAP. E CAP.	I	K K J M
C2931 △ C2932 △ C2933 △ C2934 △ C2936 C2937 △ C2940 C2945	QETC1VM-477Z QEZ0179-337M QETB1EM-228 QETB1VM-228 QETC1EM-477Z QCZ0132-152AZ QETC1CM-107Z QFN31HJ-102ZJ1	E CAP. E CAP. E CAP. E CAP. C CAP. C CAP. M CAP.	330 µ F 200V 2200 µ F 25V 2200 µ F 35V 470 µ F 25V 1500 p F 500V	M M M K M J
T R A N S I T2501 介 T2901 介 T2902	F O R M E R CE42034-002J1 CE41741-001J1 CE42395-002J1	HOR DRIVE TRANS POWER TRANSF SW TRANSF		
C O I L ↑ L2501 L2502 ↑ L2503 ↑ L2931 ↑ L2932	CELL004-001 CE40973-001J1 CELC901-054J6 CELC901-050J6 CELC901-050J6	LINEARITY COIL CHOKE COIL COIL HEATER CHOKE HEATER CHOKE		
D I O D E △ D2401 D2402 D2403 D2407 △ D2501 △ D2502 D2505 △ D2521	1N4003-T3 RD75E(B)-T5 MA4043(M)-T2 MA165-T2 ERD07-15-L RU30-C1 RU2-T3 RH1S-T3	SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE	-	
△ D2522 △ D2523 △ D2524 D2525 D2527 △ D2528 △ D2901 D2903-04	RGP10J(C1)-T3 1SS81-T2 RU3AM-LFC4 RGP10J(C1)-T3 MA4082(M)-T2 MTZJ7.5S-T2 D3SBA60 RGP10J(C1)-T3	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE DIODE BRIDGE SI.DIODE		
D2905 △ D2932 D2935-36 D2937 △ D2941 △ D2942 △ D2943 △ D2944	RD12E(B2)-T2 S1NB20 MA165-T2 RD12E(B3)-T2 RU4AM-C1 RU4YX-C1 RU4YX-C1 MA4180(M)-T2	ZENER DIODE BRIDGE DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE		
△ D2945 D2947 △ D2948	MA165-T2 MA165-T2 MTZJ7.5S-T2	SI.DIODE SI.DIODE ZENER DIODE		
TRANS Q2501 △ Q2511 △ Q2901 Q2921 △ Q2922	I S T O R 2SC4212-C1 2SD2348-LB 2SA933S(QR)-T 2SC1815(Y)-T 2SA949(Y)C1	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		

Δ	Symbol No.	Part No.	Part Name	Description	Local
⚠	T R A N S I Q2923 Q2924 Q2925 Q2926 Q2927	S T O R 2SA933S(QR)-T SF0R3B42(C1)-T 2SC1815(Y)-T 2SA933S(QR)-T 2SC2785(JH)-T	SI.TRANSISTOR S C R SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		. /
\triangle	I C IC2401 IC2421 IC2901 IC2921	AN78L09-Y LA7845 STR-S6301 SE135N	IC I C I.C(HYBRID) I.C(HYBRID)		
	OTHERS F2901 K2401 K2901 K2902 K2931-33 LF2901 LF2902 PC2901	QMF0007-6R3J1 CE41169-002J2 CE41433-001Z CE42050-001Z CE42050-001Z CELF005-001J2 CELF004-001J1 TLP621(GB)	FUSE BEADS CORE BEADS CORE CORE LINE FILTER LINE FILTER I.C(PH COUPLER)	6.3A/125V	
⚠	RY2901 S2401 TH2401 TH2901 VA2901	CESK023-001 QSL6A13-C01 CEKN007-332Z CEKP001-001J1 ERZ-C10VK361G	RELAY LEVER SWITCH N.THERMISTOR P.THERMISTOR VARISTOR	V.CENTER	

POWER DEF PW BOARD ASS'Y [SGM-2501A-H2 (AV-27BP5(CA))]

Regarding the parts list for the power def PW board Ass'y [SGM-2501A-H2] of the model for canada, only the different parts from those of the model [SGM-2001A-H2] are described. For further details regarding the other parts, refer to the parts list of the model [SGM-2001A-H2] described on page 4-16 through page 4-18.

\triangle	SYMBOL	PART No.			
		No.	America Model [US] SGM-2001A-H2	Canada Model [CA] SGM-2501A-H2	PARTS NAME
Δ	R2901	QRC121K-275UZ	QRC121K-275EZ	COMPIR	
	K2902	CE42050-001Z	CE41433-001Z	CORE	
Δ	LF2901	CELF005-001J2	CE41506-00BJ1	LINE FILTER	

CRT SOCKET PW BOARD ASS'Y [SGM-3001A-H2 (AV-27BP5)]

Δ	Symbol No.	Part No.	Part Name	Description	Local
\triangle	RESIST R3310-12 R3313-15 R3322 R3323 R3324 R3361	O R QRG029J-153 QRG029J-183 QRD149J-102S QRD149J-102S QRD149J-102S QRC121K-105Z	OM R OM R C R C R C R COMP.R	15k Ω 2W J 18k Ω 2W J 1k Ω 1/4W J 1k Ω 1/4W J 1k Ω 1/4W J 1M Ω 1/2W K	
	C A P A C I C3321 C3361 C3363	T O R QETC2EM-105Z QETC2EM-105Z QCZ0121-102A	E CAP. E CAP. C CAP.	1 μ F 250V M 1 μ F 250V M 1000 p F 3000V Z	
	C O I L L3301-03 L3304-06	CELP055-180Z CELP055-470Z	PEAKING COIL PEAKING COIL	18 μ H 47 μ H	
	D I O D E D3301-03 D3304-06 D3313-15 D3361	MA165-T2 1SS244-T2 MA165-T2 RM2C-LFA1	SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
Δ	T R A N S I Q3301-03 Q3304-06 Q3307-09 Q3310 Q3311 Q3312 Q3313-15 Q3316	S T O R 2SC4502-T 2SC4544-C1 2SA1321-T 2SC3334-T 2SC3334-T 2SC3334-T 2SC2458(GR)-T 2SA1048(GR)-T	SI.TRANSISTOR SI.TRANSISTOR SI TRANSISTOR SI TRANSISTOR SI TRANSISTOR SI TRANSISTOR TRANSISTOR TRANSISTOR		. M rq
Δ	OTHERS SK3001	CE42446-001	CRT SOCKET		

CONTROL PW BOARD ASS'Y [SGM-4001A-H2 (AV-27BP5)]

∆ Symbol No	. Part No.	Part Name	Descriptio	n	Loca1
D I O D E D4715	GL2PR6	L.E.D.(RED)			
I C					·
IC4841	GP1U781Q	IFR DETECT UNIT		•	4
отнев	R S				
0 2 22 22 2	CM46978-A01-H	LED HOLDER			
S4702	QSP1A11-C19Z	PUSH SWITCH	CH UP		
\$4703	OSP1A11-C19Z	PUSH SWITCH	CH DOWN		
S4704	QSP1A11-C19Z	PUSH SWITCH	FUNCTION		
\$4705	QSP1A11-C19Z	PUSH SWITCH	VOL UP		
S4706	QSP1A11-C19Z	PUSH SWITCH	VOL DOWN		
S4707	OSP1A11-C19Z	PUSH SWITCH	POWER		

AV TERMINAL PW BOARD ASS'Y [SGM-8001A-H2 (AV-27BP5)]

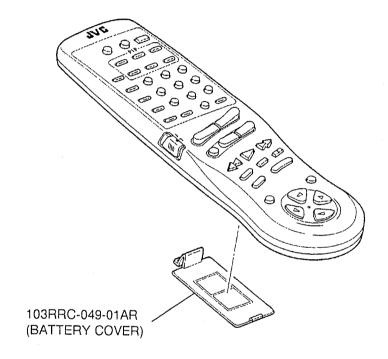
Symbol No.	Part No.	Part Name	Description	Loca
RESIST R8105 R8108 R8109 R8251 R8252 R8607-08		C R C R C R C R C R C R	220 Ω 1/2W J 220 Ω 1/2W J 2.2k Ω 1/2W J 10k Ω 1/2W J 6.8k Ω 1/2W J 1k Ω 1/2W J	
C A P A C I C8101 C8102-04 C8106-07 C8109-10 C8118 C8119 C8120 C8121	T O R NCB21HK-103AY QEKC1CM-106GMZ NCB21HK-102AY NCB21HK-102AY NCB21HK-102AY QEKC1CM-226GMZ QEKC1CM-107MZ QEPC1CM-106MZ	CHIP CAP. E CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. E CAP. BP E CAP.	0.01 μ F 50V K 10 μ F 16V M 1000 p F 50V K 1000 p F 50V K 1000 p F 50V K 22 μ F 16V M 100 μ F 16V M 10 μ F 16V M	
C8122 C8124 C8125 C8201 C8219 C8231 C8233 C8234	QEKC1CM-107MZ QEKC1CM-107MZ QEU61AM-108MZ NCT03CH-120AY QEN61CM-336Z QEKC1CM-476MZ NCT03CH-180AY QEPC1CM-106MZ	E CAP. E CAP. E CAP. CHIP CAP. BP E CAP. E CAP. CHIP CAP. BP E CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C8601-04 C8605-08 C8609-10 C8612-13 C8614-16 C8618 C8621 C8622	QEKC1HM-105GMZ NCT03CH-101AY NCT03CH-271AY QEPC1EM-335MZ QEKC1HM-105GMZ QEKC1HM-105GMZ QEKC1CM-107MZ QEKC1CM-106GMZ	E CAP. CHIP CAP. CHIP CAP. BP E CAP. E CAP. E CAP. E CAP. E CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C8630-31 C8632	NCB21HK-102AY QEKC1CM-476MZ	CHIP CAP. E CAP.	1000 p F 50V K 47 μ F 16V M	
C O I L L8201 L8210	CELP055-220Z CELP008-820YL	PEAKING COIL CHIP P COIL	22 µН	
D I O D E D8101-04 D8106 D8601-04 D8605-09 D8620-23 D8630-33 D8640-43	MA3120-W MA3120-W MA3120-W MA151K-W MA3068(M)-W MA3068(M)-W MA3068(M)-W	ZENER DIODE ZENER DIODE ZENER DIODE SI.DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
T R A N S I Q8101-03 Q8201 Q8216 Q8601-02 Q8603 Q8604-05 Q8606 Q8607	S T O R 2SA1022(BC)-W 2SC2412K(QR)-W 2SC2778(BC)-W DTC363TK-W DTA144TK-W DTC363TK-W DTA144TK-W 2SC2778(BC)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR		
Q8608	2SA1022(BC)-W	SI.TRANSISTOR		
I C IC8101 IC8102	CXA1545AS AN78L09-Y	I.C(MONO-ANA)		

Δ	Symbol No.	Part No.	Part Name	Description	Local
	OTHER	S			
Δ	0 1 11 2 10	CM22763-C02-VH	TERMINAL BOARD		
		SBSB3010M	TAPPING SCREW	×5	
	CN8003	CHA401N-35R-J	HQF SOCKET		
	J8801	CEMN057-001	PIN JACK		
	J8802	AX49607-024	MINI JACK		
	J8803	CEMN045-001	PIN JACK		
	J8804	QMCC008-C01	DIN JACK		
	J8805-06	CEMN073-001	PIN JACK		
	J8807-08	AX49607-020	MINI JACK		
	J8809	CEMT016-001	TERMINAL		
	S8801	QSS1F23-C06	SLIDE SWITCH	MAIN/SURROUND1&2	

PIP MODULE PW BOARD ASS'Y [SGM-P001A-H2 (AV-27BP5)]

⚠ Symbol No.	Part No.	Part Name	Description	Local
	SGM-P001A-H2	PIP MODULE		

REMOTE CONTROL UNIT [RM-C723-01-A (AV-27BP5)]



MAIN PW BOARD ASS'Y [SGM-1004A-H2 (AV-31BP5) / SGM-1003A-H2 (AV-31BM5)]

⚠	Symbol No.	Part No.	Part Name	Description	Loca1
	V A R I A B R1131 R1142	LE RESIST QVPE611-102HZ QVPE611-103HZ		1k Ω B 10k Ω B	
	RESIST R1001 R1155 R1156 R1601 R1659 R1661 R1792 R1806	O R QRD149J-150S NRVA02D-1502NY NRVA02D-1501NY QRD149J-100S QRD149J-2R2S QRD149J-2R2S QRD123J-101SX NRVA02D-1502NY	C R CHIP MF R CHIP MF R C R C R C R C R C R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Δ	R1985	QRG039J-100A	OM R	10 Ω 3W J	
	C A P A C I C1005 C1009-12 C1014 C1053 C1101 C1104 C1108 C1109-10	T O R QFLC1HK-103MZ NCB21HK-102AY NCB21HK-102AY NCB21HK-103AY NCB21HK-103AY NCB21HK-472AY QFV41HJ-224M NCB21HK-103AY	M CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP CAP.	0.01 μ F 50V K 1000 p F 50V K 1000 p F 50V K 0.01 μ F 50V K 0.01 μ F 50V K 4700 p F 50V K 0.22 μ F 50V J 0.01 μ F 50V K	
	C1113 C1119 C1125 C1127 C1128 C1133 C1139 C1140	NCB21HK-103AY NCF21HZ-104AY NCT03CH-220AY NCB21HK-103AY NCT03CH-820AY NCB21HK-102AY NCB21HK-103AY NCT03CH-101AY	CHIP CAP. CHIP C CAP. CHIP CAP.	0.01 µF 50V K 0.1 µF 50V Z 22 pF 1600V H 0.01 µF 50V K 82 pF 1600V H 1000 pF 50V K 0.01 µF 50V K	
	C1141 C1142 C1143 C1144 C1145 C1146-47 C1153 C1154	NCB21EK-683AY NCB21HK-102AY NCB21HK-103AY QEB61HM-104MZ NCB21HK-332AY NCB21HK-103AY QFV71HJ-104MZ QEN61HM-105Z	CHIP CAP. CHIP CAP. CHIP CAP. E CAP. CHIP CAP. CHIP CAP. TF CAP. BP E CAP.	0.068 μ F 25V K 1000 p F 50V K 0.01 μ F 50V K 0.1 μ F 50V M 3300 p F 50V K 0.01 μ F 50V K 0.1 μ F 50V K 0.1 μ F 50V M	
	C1155 C1156 C1157 C1158 C1160 C1164 C1165 C1167-68	QEN61HM-475Z QEN61CM-106Z QEB61HM-104MZ QFLC1HK-473MZ QFV71HJ-104MZ QEE61CK-335BZ QEE61CK-106BZ QEN61CM-106Z	BP E CAP. BP E CAP. E CAP. M CAP. TF CAP. TAN.CAP. TAN.CAP. BP E CAP.	4.7 μ F 50V M 10 μ F 16V M 0.1 μ F 50V M 0.047 μ F 50V K 0.1 μ F 50V J 3.3 μ F 16V K 10 μ F 16V K 10 μ F 16V M	
	C1201 C1202 C1241 C1271 C1273 C1274 C1275 C1277	NCT03CH-470AY QEN61CM-226Z NCB21HK-222AY QEN61HM-475Z NCT03CH-100AY QEN61HM-474Z NCB21HK-102AY NCB21HK-472AY	CHIP CAP. BP E CAP. CHIP CAP. BP E CAP. CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP.	47 p F 1600V H 22 μ F 16V M 2200 p F 50V K 4.7 μ F 50V M 10 p F 1600V H 0.47 μ F 50V M 1000 p F 50V K 4700 p F 50V K	
	C1278 C1331 C1332 C1333 C1334	NCS21HJ-221AY NCT03CH-680AY NCB21HK-102AY NCT03CH-8R0AY NCB21HK-103AY	CHIP C CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.	220 p F 50V J 68 p F 1600V H 1000 p F 50V K 8 p F 1600V H 0.01 µ F 50V K	

∆ S ₂	ymbol No.	Part No.	Part Name	Description	Local
C1 C1 C1 C1 C1	CAPACI 1335 1336 1337 1373 1390 1392 1393 1398-99	T O R QFV71HJ-104MZ NCT03CH-121AY NCT03CH-221AY QFV71HJ-104MZ NCF21HZ-104AY NCS21HJ-221AY NCT03CH-150AY NCF21HZ-104AY	TF CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP C CAP. CHIP C CAP. CHIP C CAP. CHIP CAP.	0.1 μ F 50V J 120 p F 1600V H 220 p F 1600V H 0.1 μ F 50V J 0.1 μ F 50V Z 220 p F 50V J 15 p F 1600V H 0.1 μ F 50V Z	
C1 C1 C1 C1 C1	1451-52 1453 1562-63 1564 1566 1575 1577	QFV71HJ-224MZ QFLC1HJ-223MZ QFLC1HJ-103MZ NCT03CH-120AY NCB21HK-103AY QFV71HJ-474MZ NCB21HK-102AY NCS21HJ-271AY	TF CAP. M CAP. M CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP CAP. CHIP CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C1 C1 C1 C1 C1	1602 1604-05 1606 1607 1608-09 1610 1619-20	QFV71HJ-104MZ QFN31HK-222ZJ1 NCB21HK-102AY QFV71HJ-104MZ NCB21HK-682AY QFV71HJ-104MZ QEN61CM-226Z NCS21HJ-681AY	TF CAP. M CAP. CHIP CAP. TF CAP. CHIP CAP. TF CAP. BP E CAP. CHIP C CAP.	0.1 \(\mu \) F 50V \(J \) 2200 \(p \) F 50V \(K \) 1000 \(p \) F 50V \(K \) 0.1 \(\mu \) F 50V \(J \) 6800 \(p \) F 50V \(K \) 0.1 \(\mu \) F 50V \(J \) 22 \(\mu \) F 16V \(M \) 680 \(p \) F 50V \(J \)	
C1 C1 C1	1664 1665	QFLC1HJ-823MZ NCS21HJ-221AY NCS21HJ-221AY QFV71HJ-124MZ QETC1CM-108Z QFV71HJ-124MZ QETC1CM-108Z QETC1CM-108Z QETB1VM-108	M CAP. CHIP C CAP. CHIP C CAP. TF CAP. E CAP. TF CAP. E CAP. E CAP. E CAP.	0.082 μ F 50V J 220 p F 50V J 220 p F 50V J 0.12 μ F 50V J 1000 μ F 16V M 0.12 μ F 50V J 1000 μ F 16V M 1000 μ F 16V M	
C1 C1 C1 C1 C1	1701 1702 1704 1708 1709-11 1713-14 1717	QEB61HM-104MZ NCB21HK-102AY NCB21EK-683AY NCT03CH-180AY NCT03CH-330AY NCB21HK-102AY NCB21EK-683AY NCB21HK-223AY	E CAP. CHIP CAP.	0.1 μ F 50V M 1000 p F 50V K 0.068 μ F 25V K 18 p F 1600V H 33 p F 1600V H 1000 p F 50V K 0.068 μ F 25V K 0.022 μ F 50V K	
C1 C1 C1 C1 C1	1801-02 1803 1804 1807 1808 1811 1813	NCB21HK-332AY NCB21HK-153AY QEN61HM-105Z NCT03CH-470AY NCB21HK-332AY NCT03CH-101AY NCB21HK-103AY NCT03CH-330AY	CHIP CAP. CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.	3300 p F 50V K 0.015 µ F 50V K 1 µ F 50V M 47 p F 1600V H 3300 p F 50V K 100 p F 1600V H 0.01 µ F 50V K 33 p F 1600V H	
C1 C1 C1 C1	1827-29 1830 1831 1852 1984 1990	NCT03CH-331AY NCT03CH-101AY NCB21HK-682AY NCT03CH-8R0AY QEHC1CM-107MZ QETC1HM-108Z	CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. E CAP.	330 p F 1600V H 100 p F 1600V H 6800 p F 50V K 8 p F 1600V H 100 µ F 16V M 1000 µ F 50V M	
T1 T1 T1 T1	RANSF 11111 1115 1116 1331 1801	O R M E R CE40123-501 CELT003-105 CELT003-106 CE41301-001J1 CE42470-001	AFC TRANSF CW TRANSF SIF TRANSF BAND PASS FILTER OSC COIL		
	OIL 1001	CELP055-150Z	PEAKING COIL	15 μ Η	

Δ	Symbol No.	Part No.	Part Name	Description	Local
	C O I L L1102 L1105 L1106 L1109 L1121 L1201 L1203 L1331	CE41131-R47Y CE41131-R47Y CE41131-R56Y CE41131-2R2Y CE41131-150Y CELP055-6R8Z CELP055-470Z CELP055-820Z	CHIP INDUCTOR CHIP INDUCTOR INDUCTOR CHIP INDUCTOR CHIP INDUCTOR PEAKING COIL PEAKING COIL PEAKING COIL	6.8 µ H 47 µ H 82 µ H	
	L1332 L1701-02 L1802	CELP055-3R9Z CELP055-4R7Z CELP055-2R2Z	PEAKING COIL PEAKING COIL PEAKING COIL	3.9 μ H 4.7 μ H 2.2 μ H	
	D I O D E 01001 01262 01265 01271 01281-82 01331-32 01351-53 01354	MA3330(L)-W RD9.1ES(B2)-T2 M1MA151K-W M1MA151K-W MA3068(M)-W M1MA151K-W M1MA151K-W M1MA151K-W	ZENER DIODE ZENER DIODE CHIP DIODE CHIP DIODE ZENER DIODE CHIP DIODE CHIP DIODE CHIP DIODE SI.DIODE		
,	D1355 D1356 D1357 D1358 D1359 D1575-76 D1651-52 D1701-02	MTZJ4.3(A)-T2 MA165-T2 MTZJ4.3(A)-T2 MA165-T2 MTZJ4.3(A)-T2 M1MA151K-W RD33E(B1)-T2 MA3062(M)-W	ZENER DIODE SI.DIODE ZENER DIODE SI.DIODE ZENER DIODE CHIP DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
	D1703-04 D1705-07 D1708-09 D1721 D1723-24 D1790-92 D1797 D1851-53	M1MA151K-W MA3068(M)-W MA3062(M)-W M1MA151K-W M1MA151K-W M1MA151K-W MTZJ15(A)-T2 M1MA151K-W	CHIP DIODE ZENER DIODE ZENER DIODE CHIP DIODE CHIP DIODE CHIP DIODE ZENER DIODE CHIP DIODE		
	D1871 D1872	MA152WK-W M1MA151K-W	DIODE CHIP DIODE		
	T R A N S I Q1101 Q1103 Q1105 Q1201 Q1202 Q1231-32 Q1261 Q1271	S T O R 2SC5083(L-P)-T 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q1272 Q1331-34 Q1351-53 Q1374 Q1375 Q1385 Q1386 Q1443	DTC323TK-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W	DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q1561 Q1562 Q1575 Q1576 Q1651 Q1681 Q1682-83	2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W DTA144TK-W DTC323TK-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR		

Δ	Symbol No.	Part No.	Part Name	Description	Local
	TRANSI Q1701 Q1801 Q1802-03 Q1851 Q1853-54 Q1855 Q1856-58 Q1871-76	S T O R 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC3773(3-4)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC3773(3-4)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q10//	2000770(0 4) 4			
⚠	I C IC1101 IC1151 IC1191 IC1201 IC1601 IC1651 IC1681 IC1701	LA7577N ATT1852ACT AN78L09-Y JCC1003B ATT1853CT MC13516T2 BA15218N MN1876466JKN1	I.C(MONO-ANA) I C IC I.C(MONO-ANA) IC I.C(MONO-ANA) I.C.(M) I C		
Δ	IC1702 IC1703 IC1791 IC1801 IC1802 IC1803 IC1871 IC1981	AT24C08/31BP BM5 MN1280-Q AN78L05-Y LC7458B-04 LA7945N MN1280-Q AN5860 LM2940CT-12	IC (SERVICE) I.C(DIGI-MOS) I.C. IC I.C(MONO-ANA) I.C(DIGI-MOS) I.C.(M) I.C(MONO-ANA)		
Δ	IC1982 IC1983	KIA7809PI AN78L05-Y	I C I.C.		
	OTHERS CF1002 CF1102 CF1106 CF1701 CF1801 CN1003 K1702-05 K1801-04 K1871 SF1101 SF1102 X1391	FTP47.25MA CE41505-001 SFSH4.5MCB CST8.00MT CSA12.0MT-Z CHA401N-35P-J CE42050-001Z CE42050-001Z CE41433-001Z CE41031-202 CE42377-201 CE41651-001Z	CERAMIC TRAP CERAMIC FILTER CER.RESONATOR C RESONATOR HQF PLUG CORE CORE BEADS CORE SAW FILTER X-TAL		

DIFFERENCE LIST BETWEEN AV-31BP5 AND AV-31BM5 MODELS

	SYMBOL No.	PART No.			
		AV-31BP5 SGM-1004A-H2	AV-31BM5 SGM-1003A-H2	PARTS NAME	REMARKS
	C1395-97		QEN61CM-106Z	BP E CAP.	
ŀ	D1871	MA152WK-W		DIODE	
	D1872	M1MA151K-W		CHIP DIODE	1
	Q1876	2SC2412K(QR)-W		SI. TRANSISTOR	
	Q1877	2SC3773(3-4)-W		SI. TRANSISTOR	
	IC1871	AN5860		I. C	
	K1871	CE41433-001Z		BEADS CORE	

POWER / DEF PW BOARD ASS'Y [SGM-2004A-H2 (AV-31BP5) / SGM-2003A-H2 (AV-31BM5)]

Regarding the POWER DEF PW Board Ass'y [SGM-2504A-H2 / SGM-2503A-H2] for the model for canada, refer to page 4-29.

△ Symbol No.	Part No.	Part Name	Description	Local
RESIST R2410 R2418 R2503 A R2504 A R2505 A R2512 R2514 A R2521	O R QRX019J-R82S QRG019J-221S QRD123J-562SX QRG039J-272A QRG039J-272A QRD121J-681SY QRG039J-822A QRD149J-1R0S	MF R OM R C R OM R OM R C R OM R C R OM R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
A R2522 A R2523 A R2524 A R2525 A R2531 A R2532 R2544 R2545	QRX039J-3R3A QRD129J-4R7S QRX039J-3R3A QRF074K-1R8 QRV141F-6201Y QRV141F-5101Y QRD123J-333SX QRD123J-562SX	MF R C R MF R UNF R MF R MF R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
R2546 R2547 ⚠ R2901 ⚠ R2905 R2909 R2911-12 R2913-14 R2915	QRD123J-471S QRG039J-330A QRC121K-275UZ QRF104K-1R0 QRD123J-274SX QRX029J-R22A QRG039J-330 QRG029J-330	C R OM R COMP.R UNF R C R MF R OM R OM R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
R2916 R2917 R2918 R2931 R2937 ⚠ R2938 ⚠ R2940 R2941	QRD123J-821SX QRD123J-153SX QRD123J-181SX QRD123J-121SX QRG019J-152S QRG019J-223S QRZ0095-R39 QRD123J-272SX	C R C R C R C R OM R OM R UNF R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
⚠ R2943⚠ R2944R2948⚠ R2954	QRD123J-223SX QRD161J-223Y QRD123J-182SX QRG029J-223	C R C R C R OM R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C A P A C I A C2407 A C2408 C2410 C2412 C2417 A C2419 C2504 A C2511	T O R QETC1VM-107Z QETB1VM-108 QEM61EK-335MZ QFN32DJ-104J1 QFN31HJ-102ZJ1 QETC1HM-476Z QETC2CM-105Z QFZ0117-3501S	E CAP. E CAP. M CAP. M CAP. E CAP. E CAP. MPP CAP.	100 μ F 35V M 1000 μ F 35V M 3.3 μ F 25V K 0.1 μ F 200V J 1000 p F 50V J 47 μ F 50V M 1 μ F 160V M 3500 p F1.4kVH ± 2.5%	
⚠ C2512 ⚠ C2513 ⚠ C2514 ⚠ C2516 C2517 ⚠ C2518 C2519-20 ⚠ C2521	QFZ0117-6501S QFZ0117-7001S QFP32GJ-223M QFP3119-474S QETC2EM-225Z QCY32HK-561RZ QEM61HK-475MZ QETB2EM-336	MPP CAP. MPP CAP. PP CAP. MPP CAP. E CAP. CH C CAP. E CAP. E CAP.	$\begin{array}{c} 6500 \text{ p F1.4kVH} & \pm 2.5\% \\ 7000 \text{ p F1.4kVH} & \pm 2.5\% \\ 0.022 \text{ \mu F} & 400V \text{ J} \\ 0.47 \text{ \mu F} & 200V & \pm 3\% \\ 2.2 \text{ \mu F} & 250V \text{ M} \\ 560 \text{ p F} & 500V \text{ K} \\ 4.7 \text{ \mu F} & 50V \text{ K} \\ 33 \text{ \mu F} & 250V \text{ M} \end{array}$	
⚠ C2522 ⚠ C2523 ⚠ C2524 C2525 ⚠ C2526 C2528 ⚠ C2901	QETB1VM-228 QETC1VM-107Z QETC1CM-477Z QFV71HJ-104MZ QETB2CM-227 QFN32DJ-222J1 QCZ9029-103M	E CAP. E CAP. TF CAP. E CAP. M CAP. C CAP.	2200 μ F 35V M 100 μ F 35V M 470 μ F 16V M 0.1 μ F 50V J 220 μ F 160V M 2200 μ F 200V J 0.01 μ FAC125V M	

⚠ Symbol No.	Part No.	Part Name	Description	Local
CAPACI A C2902 A C2903 A C2904 A C2911 A C2912 A C2913 A C2914 A C2915	T O R QCZ9029-103M QFZ9036-104M QFZ9036-104M QCZ9033-102A QCZ9033-102A QCZ9033-102A QCZ9033-102A QCZ9033-102A QCZ90145-687R	C CAP. M.F.CAP. M.F.CAP. C CAP. C CAP. C CAP. C CAP. C CAP. E CAP.	0.01 µ FAC125V M 0.1 µ FAC250V M 0.1 µ FAC250V M 1000 p FAC125V K 1000 p FAC125V K 1000 p FAC125V K 1000 p FAC125V K 1000 p FAC125V K 680 µ F 200V	
C2918 C2920 C2921 C2922 C2923 C2931 A C2932 A C2933	QFZ0121-272S QFN32DK-333J1 QFN31HJ-272ZJ1 QEHC2AM-107MZ QEHC1HM-336MZ QETC1VM-477Z QEZ0179-337M QETB1EM-228	MPP CAP. M CAP. E CAP. E CAP. E CAP. E CAP. E CAP. E CAP.	2700 p F 0.033 µ F 200V K 2700 p F 50V J 100 µ F 100V M 33 µ F 50V M 470 µ F 35V M 330 µ F 200V 2200 µ F 25V M	
⚠ C2934⚠ C2936C2937⚠ C2940C2945	QETB1VM-228 QETC1EM-477Z QCZ0132-152AZ QETC1CM-107Z QFN31HJ-102ZJ1	E CAP. E CAP. C CAP. E CAP. M CAP.	2200 µF 35V M 470 µF 25V M 1500 pF 500V K 100 µF 16V M 1000 pF 50V J	
T R A N S F T2501 △ T2901 △ T2902	ORMER CE42034-002J1 CE41741-001J1 CE42395-002J1	HOR DRIVE TRANS POWER TRANSF SW TRANSF		
COIL A L2501 A L2502 A L2503 A L2931 A L2932	CE40669-00BJ1 CELC052-821J7 CELC901-054J6 CELC901-050J6 CELC901-050J6	LINIARITY COIL CHOKE COIL COIL HEATER CHOKE HEATER CHOKE		
D I O D E ↑ D2401 D2402 D2403 D2407 ↑ D2501 ↑ D2502 D2505 ↑ D2521	1N4003-T3 RD75E(B)-T5 MA4043(M)-T2 1SS133-T2 ERD07-15-L RU30-C1 RU2-T3 RH1S-T3	SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
 ⚠ D2522 ⚠ D2523 ⚠ D2524 ⚠ D2525 D2527 ⚠ D2528 D2541 ⚠ D2901 	RGP10J(C1)-T3 1SS81-T2 RU3AM-LFC4 RGP10J(C1)-T3 MA4082(M)-T2 MTZJ7.5S-T2 1SS133-T2 D3SBA60	SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE DIODE BRIDGE		
D2903-04 D2905 ⚠ D2932 D2935-36 D2937 ⚠ D2941 ⚠ D2942 ⚠ D2943	RGP10J(C1)-T3 RD12E(B2)-T2 S1NB20 1SS133-T2 RD12E(B3)-T2 RU4AM-C1 RU4YX-C1 RU4YX-C1	SI.DIODE ZENER DIODE BRIDGE DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
△ D2944 △ D2945 D2947 △ D2948	MA4180(M)-T2 MA165-T2 1SS133-T2 MTZJ7.5S-T2	ZENER DIODE SI.DIODE SI.DIODE ZENER DIODE		

⚠ Symbol No.	. Part No.	Part Name	Description	Local
TRANS Q2501 △ Q2511 Q2541 Q2542 Q2543 △ Q2901 Q2921 △ Q2922	ISTOR 2SC4212-C1 2SD2348-LB 2SA1309A(QR)-T 2SD1408(QY)-LB 2SA1309A(QR)-T 2SA933S(QR)-T 2SC1815(Y)-T 2SA949(Y)C1	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR POWER TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
<pre> Q2923 Q2924 Q2925 Q2926 Q2927 </pre>	2SA933S(QR)-T SFOR3B42(C1)-T 2SC1815(Y)-T 2SA933S(QR)-T 2SC2785(JH)-T	SI.TRANSISTOR S C R SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
I C △ IC2401 △ IC2421 △ IC2901 △ IC2921	AN78L09-Y LA7845 STR-S6301 SE135N	IC I C I.C(HYBRID) I.C(HYBRID)		
ОТНЕЯ	R S			
Å F2901 H2004 K2401 K2901 K2902 K2931-33 Å LF2901	QMF0007-6R3J1 CM42862-00G-H CE41169-002J2 CE41433-001Z CE42050-001Z CE42050-001Z CELF005-001J2	FUSE HEAT SINK ASSY BEADS CORE BEADS CORE CORE CORE LINE FILTER	6.3A/125V	
△ LF2902 △ PC2901 △ RY2901 S2401 TH2401 △ TH2901 △ VA2901	CELF004-001J1 TLP621(GB) CESK023-001 QSL6A13-C01 CEKN007-332Z CEKP001-001J1 ERZ-C10VK361G	LINE FILTER I.C(PH COUPLER) RELAY LEVER SWITCH N.THERMISTOR P.THERMISTOR VARISTOR	V.CENTER	en e

POWER / DEF PW BOARD ASS'Y

[SGM-2504A-H2 (AV-31BP5) / SGM-2503A-H2 (AV-31BM5), (CA)]

Regarding the parts list for the power def PW board Ass'y [SGM-2504A-H2 / SGM-2503A-H2] of the model for canada, only the different parts from those of the model [SGM-2004A-H2 / SGM-2003A-H2] are described. For further details regarding the other parts, refer to the parts list of the model [SGM-2004A-H2 / SGM-2003A-H2] described on page 4-27 through page 4-29.

		PART No.			
A SYMBOL No.		America Model [US] SGM-2004A-H2 SGM-2003A-H2	Canada Model [CA] SGM-2504A-H2 SGM-2503A-H2	PARTS NAME	REMARKS
Δ	R2901	QRC121K-275UZ	QRC121K-275EZ	COMP R	
	C2905		QFZ9036-104M	MFR	
	K2902	CE42050-001Z	BUS WIRE	CORE	
	LF2901	CELF005-001J2	CE41506-00BJ1	LINE FILTER	
	LF2903		CE41506-00BJ1	LINE FILTER	

CRT SOCKET PW BOARD ASS'Y [SGM-3003A-H2 (AV-31BP5 / AV-31BM5)

▲ Symbol No.	Part No.	Part Name	Description		Local
R E S I S 4 R3310-12 R3313-15 ⚠ R3322 ⚠ R3323 ⚠ R3324 ⚠ R3361	T O R QRG029J-153 QRG029J-183 QRD149J-102S QRD149J-102S QRD149J-102S QRC121K-105Z	OM R OM R C R C R C R COMP.R	$\begin{array}{cccc} 15 k \Omega & 2 W \\ 18 k \Omega & 2 W \\ 1 k \Omega & 1/4 W \\ 1 k \Omega & 1/4 W \\ 1 k \Omega & 1/4 W \\ 1 M \Omega & 1/2 W \end{array}$	J J J J K	
C A P A C △ C3321 △ C3361 C3363	I T O R QETC2EM-105Z QETC2EM-105Z QCZ0121-102A	E CAP. E CAP. C CAP.	1 µ F 250V 1 µ F 250V 1000 p F 3000V	M M Z	
C O I L L3301-03 L3304-06	CELP055-180Z CELP055-470Z	PEAKING COIL PEAKING COIL	18 µ H 47 µ H		
D I O D E D3301-03 D3304-06 D3313-15 D3361	MA165-T2 1SS244-T2 MA165-T2 RM2C-LFA1	SI.DIODE SI.DIODE SI.DIODE SI.DIODE			
TRANS Q3301-03 Q3304-06 Q3307-09 企 Q3310 企 Q3311 企 Q3312 Q3313-15 Q3316	S T O R 2SC4502-T 2SC4544-C1 2SA1321-T 2SC3334-T 2SC3334-T 2SC3334-T 2SC3334-T 2SC3458(GR)-T 2SA1048(GR)-T	SI.TRANSISTOR SI.TRANSISTOR SI TRANSISTOR SI TRANSISTOR SI TRANSISTOR SI TRANSISTOR TRANSISTOR TRANSISTOR			
OTHERS △ SK3001	S CE42446-001	CRT SOCKET	· · · · · · · · · · · · · · · · · · ·		

CONTROL PW BOARD ASS'Y [SGM-4001A-H2 (AV-31BP5 / AV-31BM5)

Δ	Symbol No.	Part No.	Part Name	Description	Local
	D I O D E D4715	GL2PR6	L.E.D.(RED)		
	I C IC4841	GP1U781Q	IFR DETECT UNIT		
	OTHERS	5			
		CM46978-A01-H	LED HOLDER		
	S4702	QSP1A11-C19Z	PUSH SWITCH	CH UP	
	S4703	OSP1A11-C19Z	PUSH SWITCH	CH DOWN	
	S4704	OSP1A11-C19Z	PUSH SWITCH	FUNCTION	
	S4705	OSP1A11-C19Z	PUSH SWITCH	VOL UP	
	S4706	OSP1A11-C19Z	PUSH SWITCH	VOL DOWN	
	S4707	QSP1A11-C19Z	PUSH SWITCH	POWER	

AV TERMINAL PW BOARD ASS'Y [SGM-8001A-H2 (AV-31BP5) / SGM-8003A-H2 (AV-31BM5)]

∆ Symbol No.	Part No.	Part Name	Description		Local
RESIST R8105 R8108 R8109 R8251 R8252 R8607-08	QRD123J-221SX QRD123J-221SX QRD123J-221SX QRD123J-222SX QRD123J-103SX QRD123J-682SX QRD123J-102SX	C R C R C R C R C R	$\begin{array}{cccc} 220 & \Omega & 1/2W \\ 220 & \Omega & 1/2W \\ 2.2k & \Omega & 1/2W \\ 10k & \Omega & 1/2W \\ 6.8k & \Omega & 1/2W \\ 1k & \Omega & 1/2W \\ \end{array}$	J J J J	
C A P A C I C8101 C8102-04 C8106-07 C8109-10 C8118 C8119 C8120 C8121	T O R NCB21HK-103AY QEKC1CM-106GMZ NCB21HK-102AY NCB21HK-102AY NCB21HK-102AY QEKC1CM-226GMZ QEKC1CM-107MZ QEPC1CM-106MZ	CHIP CAP. E CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. E CAP. BP E CAP.	0:01 µ F 50V 10 µ F 16V 1000 p F 50V 1000 p F 50V 1000 p F 50V 22 µ F 16V 100 µ F 16V 10 µ F 16V	К М К К М М	
C8122 C8124 C8125 C8201 C8219 C8231 C8233 C8234	QEKC1CM-107MZ QEKC1CM-107MZ QEU61AM-108MZ NCT03CH-120AY QEN61CM-336Z QEKC1CM-476MZ NCT03CH-180AY QEPC1CM-106MZ	E CAP. E CAP. E CAP. CHIP CAP. BP E CAP. E CAP. CHIP CAP. BP E CAP.	100 µ F 16V 100 µ F 16V 1000 µ F 10V 12 p F 1600V 33 µ F 16V 47 µ F 16V 18 p F 1600V 10 µ F 16V	M M H M M M	
C8601-04 C8605-08 C8609-10 C8612-13 C8614-16 C8618 C8621 C8622	QEKC1HM-105GMZ NCT03CH-101AY NCT03CH-271AY QEPC1EM-335MZ QEKC1HM-105GMZ QEKC1HM-105GMZ QEKC1CM-107MZ QEKC1CM-106GMZ	E CAP. CHIP CAP. CHIP CAP. BP E CAP. E CAP. E CAP. E CAP. E CAP.	1 µ F 50V 100 p F 1600V 270 p F 1600V 3.3 µ F 25V 1 µ F 50V 1 µ F 50V 100 µ F 16V 10 µ F 16V	M H M M M	
C8630-31 C8632	NCB21HK-102AY QEKC1CM-476MZ	CHIP CAP. E CAP.	1000 p F 50V 47 μ F 16V	K M	
C O I L L8201 L8210	CELP065-220Z CELP008-820YL	PEAKING COIL CHIP P COIL	22 µ Н		
D I O D E D8101-04 D8106 D8601-04 D8605-09 D8620-23 D8630-33 D8640-43	MA3120-W MA3120-W MA3120-W M1MA151K-W MA3068(M)-W MA3068(M)-W MA3068(M)-W	ZENER DIODE ZENER DIODE ZENER DIODE CHIP DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE			
T R A N S I Q8101-03 Q8201 Q8216 Q8601-02 Q8603 Q8604-05 Q8606 Q8607	S T O R 2SA1037K(QR)-W 2SC2412K(QR)-W DTC363TK-W DTA144TK-W DTC363TK-W DTA144TK-W 2SC2412K(QR)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR			-
Q8608	2SA1037K(QR)-W	SI.TRANSISTOR			

⚠ Symbol No.	Part No.	Part Name	Description	Local
I C				
IC8101	CXA1545AS	I.C(MONO-ANA)		
IC8102	AN78L09-Y	IC		
OTHER	S			
Δ	CM22763-C02-VH	TERMINAL BOARD		
	SBSB3010M	TAPPING SCREW	×5	
CN8003	CHA401N-35R-J	HOF SOCKET		
J8801	CEMN057-001	PĪN JACK		
J8802	AX49607-024	MINI JAČK		
J8803	CEMN045-001	PIN JACK		
J8804	QMCC008-C01	DIN JACK		
J8805~06	CEMN073-001	PIN JACK		
J8807-08	AX49607-020	MINI JACK		
J8809	CEMT016-001	TERMINAL		
S8801	QSS1F23-C06	SLIDE SWITCH	MAIN/SURROUND1&2	

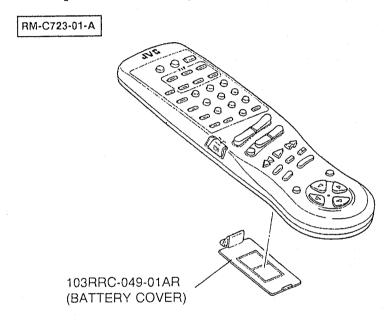
DIFFERENCE LIST BETWEEN AV-31BP5 AND AV-31BM5 MODELS

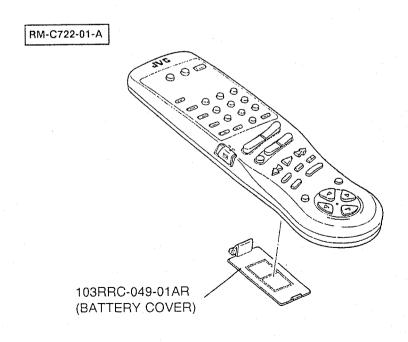
	SYMBOL	PART No.			
\triangle	No.	AV-31BP5 SGM-8001A-H2	AV-31BM5 SGM-8003A-H2	PARTS NAME	REMARKS
	C8614-15	QEKC1HM-105GMZ		E CAP.	
	D8605-06	M1MA161K-W		CHIP DIODE	
	D8640-43	MA3068(M)-W		ZENER DIODE	
	Q8101	2SA1037K(QR)-W		SI. TRANSISTOR	
	Q8601-02	DTC363TK-W	***************************************	DIGI. TRANSISTOR	
	Q8603	DTA144TK-W		DIGI. TRANSISTOR	
	J8802	AX49607-024		MINI JACK	
Δ		CM22763-C02-VH	CM22763-C03-VH	TERMINAL BOARD	

PIP MODULE PW BOARD ASS'Y [SGM-P001A-H2 (ONLY AV-31BP5)]

⚠ Symbol No.	Part No.	Part Name	Description	Local
	SGM-P001A-H2	PIP MODULE		

REMOTE CONTROL UNIT [RM-C723-01-A (AV-31BP5) / RM-C722-01-A (AV-31BM5)]





MAIN PW BOARD ASS'Y [SGM-1006A-H2 (AV-35BP5)]

△	Symbol No.	Part No.	Part Name	Description	Local
	V A R I A B R1131 R1142	LE RESIST QVPE611-102HZ QVPE611-103HZ		1kΩ B 10kΩ B	
	R E S I S T R1001 R1155 R1156 R1601 R1659 R1661 R1792 R1806	QRD149J-150S NRVA02D-1502NY NRVA02D-1501NY QRD149J-100S QRD149J-2R2S QRD149J-2R2S QRD149J-101SX NRVA02D-1502NY	C R CHIP MF R CHIP MF R C R C R C R C R C R C R CHIP MF R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
<u> </u>	R1985	QRG039J-100A	OM R	10 Ω 3W J	
	C A P A C I C1005 C1009-12 C1014 C1053 C1101 C1104 C1108 C1109-10	T O R QFLC1HK-103MZ NCB21HK-102AY NCB21HK-102AY NCB21HK-103AY NCB21HK-103AY NCB21HK-472AY QFV41HJ-224M NCB21HK-103AY	M CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
	C1113 C1119 C1125 C1127 C1128 C1133 C1139 C1140	NCB21HK-103AY NCF21HZ-104AY NCT03CH-220AY NCB21HK-103AY NCT03CH-820AY NCB21HK-102AY NCB21HK-103AY NCT03CH-101AY	CHIP CAP. CHIP C CAP. CHIP CAP.	0.01 µ F 50V K 0.1 µ F 50V Z 22 p F 1600V H 0.01 µ F 50V K 82 p F 1600V H 1000 p F 50V K 0.01 µ F 50V K	
	C1141 C1142 C1143 C1144 C1145 C1146-47 C1153 C1154	NCB21EK-683AY NCB21HK-102AY NCB21HK-103AY QEB61HM-104MZ NCB21HK-332AY NCB21HK-103AY QFV71HJ-104MZ QEN61HM-105Z	CHIP CAP. CHIP CAP. E CAP. E CAP. CHIP CAP. CHIP CAP. TF CAP. BP E CAP.	0.068 μ F 25V K 1000 p F 50V K 0.01 μ F 50V K 0.1 μ F 50V M 3300 p F 50V K 0.01 μ F 50V K 0.01 μ F 50V J 1 μ F 50V M	
	C1155 C1156 C1157 C1158 C1160 C1164 C1165 C1167-68	QEN61HM-475Z QEN61CM-106Z QEB61HM-104MZ QFLC1HK-473MZ QFV71HJ-104MZ QEE61CK-335BZ QEE61CK-106BZ QEN61CM-106Z	BP E CAP. BP E CAP. E CAP. M CAP. TF CAP. TAN.CAP. TAN.CAP. BP E CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
	C1201 C1202 C1203 C1204 C1205 C1241 C1271 C1273	NCT03CH-470AY QEN61CM-226Z NCT03CH-2R0AY NCT03CH-220AY NCT03CH-101AY NCB21HK-222AY QEN61HM-475Z NCT03CH-100AY	CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. BP E CAP. CHIP CAP.	47 p F 1600V H 22 µ F 16V M 2 p F 1600V H 22 p F 1600V H 100 p F 1600V H 2200 p F 50V K 4.7 µ F 50V M 10 p F 1600V H	
	C1274 C1275 C1277 C1278 C1331	QEN61HM-474Z NCB21HK-102AY NCB21HK-472AY NCS21HJ-221AY NCT03CH-680AY	BP E CAP. CHIP CAP. CHIP CAP. CHIP C CAP. CHIP C CAP.	0.47 µ F 50V M 1000 p F 50V K 4700 p F 50V K 220 p F 50V J 68 p F 1600V H	

⚠ Symb	ol No.	Part No.	Part Name	Description	Local
C A C133 C133 C133 C133 C133 C133	33 34 35 36 37	T O R NCB21HK-102AY NCT03CH-8R0AY NCB21HK-103AY QFV71HJ-104MZ NCT03CH-121AY NCT03CH-221AY QFV71HJ-104MZ NCF21HZ-104AY	CHIP CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP CAP. CHIP CAP. CHIP CAP. TF CAP. CHIP C CAP.	1000 p F 50V K 8 p F 1600V H 0.01 µ F 50V K 0.1 µ F 50V J 120 p F 1600V H 220 p F 1600V H 0.1 µ F 50V J 0.1 µ F 50V Z	
	93 98-99 91-52 93 71	NCS21HJ-221AY NCT03CH-150AY NCF21HZ-104AY QFV71HJ-224MZ QFLC1HJ-223MZ NCT03CH-271AY NCB21HK-103AY NCF21HZ-104AY	CHIP C CAP. CHIP CAP. CHIP C CAP. TF CAP. M CAP. CHIP CAP. CHIP CAP. CHIP CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C147 C147 C147 C147 C156 C156 C156	75 76 77 32~63 34 36	NCT03CH-151AY QEN61CM-106Z NCT03CH-271AY NCB21HK-103AY QFLC1HJ-103MZ NCT03CH-120AY NCB21HK-103AY QFV71HJ-474MZ	CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP. M CAP. CHIP CAP. CHIP CAP. TF CAP.	150 p F 1600V H 10 µ F 16V M 270 p F 1600V H 0.01 µ F 50V K 0.01 µ F 50V J 12 p F 1600V H 0.01 µ F 50V K 0.47 µ F 50V J	
C160 C160	78 02 04-05 06 07 08-09	NCB21HK-102AY NCS21HJ-271AY QFV71HJ-104MZ QFN31HK-222ZJ1 NCB21HK-102AY QFV71HJ-104MZ NCB21HK-682AY QFV71HJ-104MZ	CHIP CAP. CHIP C CAP. TF CAP. M CAP. CHIP CAP. TF CAP. CHIP CAP. TF CAP.	1000 p F 50V K 270 p F 50V J 0.1 µ F 50V J 2200 p F 50V K 1000 p F 50V K 0.1 µ F 50V J 6800 p F 50V K 0.1 µ F 50V J	
C16: C16: C16: C16: C16: C16: C16: C16:	22 52 54 32 33	QEN61CM-226Z NCS21HJ-681AY QFLC1HJ-823MZ NCS21HJ-221AY NCS21HJ-221AY QFV71HJ-124MZ QETC1CM-108Z QFV71HJ-124MZ	BP E CAP. CHIP C CAP. M CAP. CHIP C CAP. CHIP C CAP. TF CAP. E CAP. TF CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
	69 01 02 04	QETC1CM-108Z QETB1VM-108 QEB61HM-104MZ NCB21HK-102AY NCB21EK-683AY NCT03CH-180AY NCT03CH-330AY NCB21HK-102AY	E CAP. E CAP. E CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
C17 C17: C18: C18: C18: C18: C18:	21 01-02 03 04 07	NCB21EK-683AY NCB21HK-223AY NCB21HK-332AY NCB21HK-153AY QEN61HM-106Z NCT03CH-470AY NCB21HK-332AY NCT03CH-101AY	CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. BP E CAP. CHIP CAP. CHIP CAP. CHIP CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
	25-26 27-29 30 31 52 84	NCB21HK-103AY NCT03CH-330AY NCT03CH-331AY NCT03CH-101AY NCB21HK-682AY NCT03CH-8R0AY QEHC1CM-107MZ QETC1HM-108Z	CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. E CAP.	0.01 µF 50V K 33 pF 1600V H 330 pF 1600V H 100 pF 1600V H 6800 pF 50V K 8 pF 1600V H 100 µF 16V M 1000 µF 50V M	

Δ	Symbol No.	Part No.	Part Name	Description	Local
	T R A N S F T11111 T1115 T1116 T1331 T1801	ORMER CE40123-501 CELT003-105 CELT003-106 CE41301-001J1 CE42470-001	AFC TRANSF CW TRANSF SIF TRANSF BAND PASS FILTER OSC COIL		
	COIL L1001 L1102 L1105 L1106 L1109 L1121 L1201 L1202	CELP055-150Z CE41131-R47Y CE41131-R47Y CE41131-R56Y CE41131-2R2Y CE41131-150Y CELP055-6R8Z CELP055-820Z	PEAKING COIL CHIP INDUCTOR CHIP INDUCTOR INDUCTOR CHIP INDUCTOR CHIP INDUCTOR PEAKING COIL PEAKING COIL	15 µ H 6.8 µ H 82 µ H	
	L1203 L1331 L1332 L1701-02 L1802	CELP055-470Z CELP055-820Z CELP055-879Z CELP055-4R7Z CELP055-2R2Z	PEAKING COIL PEAKING COIL PEAKING COIL PEAKING COIL PEAKING COIL	47 μ Η 82 μ Η 3.9 μ Η 4.7 μ Η 2.2 μ Η	
	D I O D E D1001 D1262 D1265 D1271 D1281-82 D1331-32 D1335-36 D1351-53	MA3330(L)-W RD9.1ES(B2)-T2 M1MA151K-W M1MA151K-W MA3068(M)-W M1MA151K-W MA152WK-W M1MA151K-W	ZENER DIODE ZENER DIODE CHIP DIODE CHIP DIODE ZENER DIODE CHIP DIODE SI.DIODE CHIP DIODE		
	D1354 D1355 D1356 D1357 D1358 D1359 D1575-76 D1651-52	MA165-T2 MTZJ4.7(A)-T2 MA165-T2 MTZJ4.7(A)-T2 MA165-T2 MTZJ4.7(A)-T2 MTZJ4.7(A)-T2 M1MA151K-W RD33E(B1)-T2	SI.DIODE ZENER DIODE SI.DIODE ZENER DIODE SI.DIODE ZENER DIODE CHIP DIODE ZENER DIODE		
	D1701-02 D1703-04 D1705-07 D1708-09 D1721 D1723-24 D1790-92 D1797	MA3062(M)-W M1MA151K-W MA3068(M)-W MA3062(M)-W M1MA151K-W M1MA151K-W M1MA151K-W MTZJ15(A)-T2	ZENER DIODE CHIP DIODE ZENER DIODE ZENER DIODE CHIP DIODE CHIP DIODE CHIP DIODE CHIP DIODE ZENER DIODE		
	D1851-53 D1871 D1872	M1MA151K-W MA152WK-W M1MA151K-W	CHIP DIODE DIODE CHIP DIODE		
	T R A N S I Q1101 Q1103 Q1105 Q1201 Q1202 Q1203-04 Q1231-32 Q1261	S T O R 2SC5083(L-P)-T 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q1271 Q1272 Q1331-34 Q1351-53 Q1374	2SA1037K(QR)-W DTC323TK-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W	SI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		

Δ	Symbol No.	Part No.	Part Name	Description	Local
	TRANSI Q1375 Q1385 Q1386 Q1443 Q1471 Q1472-74 Q1561 Q1562	S T O R 2SA1037K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC2412K(QR)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR	,	
	Q1575 Q1576 Q1651 Q1681 Q1682-83 Q1701 Q1801 Q1802-03	2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W DTA144TK-W DTC323TK-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
	Q1851 Q1853-54 Q1855 Q1856-58 Q1871-76 Q1877	2SC2412K(QR)-W 2SC2412K(QR)-W 2SC3773(3-4)-W 2SC2412K(QR)-W 2SC2412K(QR)-W 2SC3773(3-4)-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
<u></u>	1 C IC1101 IC1151 IC1151 IC1201 IC1471 IC1601 IC1651 IC1681	LA7577N ATT1852ACT AN78L09-Y JCC1003B M51494L ATT1853CT MC13516T2 BA15218N	I.C(MONO-ANÁ) I C IC I.C(MONO-ANA) I.C(MONO-ANA) IC I.C(MONO-ANA) IC I.C(MONO-ANA)		
	IC1701 IC1702 IC1703 IC1791 IC1801 IC1802 IC1803 IC1871	MN1876466JKN1 AT24C08/358P5 MN1280-Q AN78L05-Y LC7458B-04 LA7945N MN1280-Q AN5860	I C IC (SERVICE) I.C(DIGI-MOS) I.C. IC I.C(MONO-ANA) I.C(DIGI-MOS) I.C.(M)		
	IC1981 IC1982 IC1983	LM2940CT-12 KIA7809PI AN78L05-Y	I.C(MONO-ANA) IC I.C.		
	OTHERS CF1002 CF1102 CF1106 CF1701 CF1801 CN1003 DL1201 DL1471	FTP47.25MA CE41505-001 SFSH4.5MCB CST8.00MT CSA12.0MT-Z CHA401N-35P-J CE42045-001 CE41360-001	CERAMIC TRAP CERAMIC FILTER CERAMIC FILTER CER.RESONATOR C RESONATOR HQF PLUG DELAY LINE DELAY LINE		
	K1335 K1702-05 K1801-04 K1871 SF1101 SF1102 X1391	CE41433-001Z CE42050-001Z CE42050-001Z CE41433-001Z CE41031-202 CE42377-201 CE41651-001Z	BEADS CORE CORE CORE BEADS CORE SAW FILTER SAW FILTER X-TAL		

POWER / DEF PW BOARD ASS'Y [SGM-2006A-H2 (AV-35BP5)]

Regarding the POWER DEF PW Board Ass'y [SGM-2506A-H2] for the model for canada, refer to page 4-40.

△ Symbol No.	Part No.	Part Name	Description	Local
RESIST R2410 R2418 R2503 A R2504 A R2505 A R2512 R2514 A R2521	O R QRX019J-R56S QRG019J-221S QRD123J-822SX QRG039J-222A QRG039J-222A QRD121J-681SY QRG039J-472A QRD149J-1ROS	MF R OM R C R OM R OM R C R OM R C R OM R	$\begin{array}{cccccc} 0.56 & \Omega & 1 \text{W} & \text{J} \\ 220 & \Omega & 1 \text{W} & \text{J} \\ 8.2 \text{k} & \Omega & 1/2 \text{W} & \text{J} \\ 2.2 \text{k} & \Omega & 3 \text{W} & \text{J} \\ 2.2 \text{k} & \Omega & 3 \text{W} & \text{J} \\ 680 & \Omega & 1/2 \text{W} & \text{J} \\ 4.7 \text{k} & \Omega & 3 \text{W} & \text{J} \\ 1 & \Omega & 1/4 \text{W} & \text{J} \end{array}$	
À R2522 À R2523 À R2524 À R2525 À R2531 À R2532 R2544 R2545	QRX039J-3R3A QRD129J-4R7S QRX039J-2R2A QRF074K-1R8 QRV141F-4991Y QRV141F-4701Y QRD123J-333SX QRD123J-562SX	MF R C R MF R UNF R MF R MF R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
R2546 R2547 À R2901 À R2905 R2909 R2911-12 R2913-14 R2915 ▲ R2906 R2916 R2917 R2918 R2918 R2931 R2937 À R2938 À R2940 R2941	QRD123J-471S QRG039J-330A QRC121K-275UZ QRF104K-1R0 QRD123J-274SX QRX029J-R22A QRG039J-330 QRG029J-330 QRC121K-821Z QRD123J-153SX QRD123J-153SX QRD123J-181SX QRD123J-181SX QRD123J-121SX QRG019J-152S QRG019J-223S QRZ0095-R39 QRD123J-272SX	C R OM R COMP.R UNF R C R MF R OM R COMP.R C R C R C R C R C R C R UNF R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
⚠ R2943⚠ R2944R2948⚠ R2954	QRD123J-223SX QRD161J-223Y QRD123J-182SX QRG029J-223	C R C R C R OM R	$\begin{array}{cccc} 22k\Omega & 1/2W & J \\ 22k\Omega & 1/6W & J \\ 1.8k\Omega & 1/2W & J \\ 22k\Omega & 2W & J \end{array}$	
C Λ P Λ C I Δ C2407 Δ C2408 C2410 C2412 C2417 Δ C2419 C2504 Δ C2511	T O R QETC 1VM-107Z QETB1VM-108 QEM61EK-335MZ QFN32DJ-104J1 QFN31HJ-102ZJ1 QETC1HM-476Z QETC2CM-105Z QFZ0117-2501S	E CAP. E CAP. E CAP. M CAP. M CAP. E CAP. E CAP. E CAP.	100 μF 35V M 1000 μF 35V M 3.3 μF 25V K 0.1 μF 200V J 1000 pF 50V J 47 μF 50V M 1 μF 160V M 2500 pF1.4kVH ± 2.5%	
△ C2512 △ C2513 △ C2514 △ C2516 C2517 △ C2518 C2519-20 △ C2521	QFZ0117-7701S QFZ0117-6501S QFP32GJ-223M QFZ0119-624S QETC2EM-225Z QCY32HK-561RZ QEM61HK-475MZ QETB2EM-336	MPP CAP. MPP CAP. PP CAP. MPP CAP. E CAP. CH C CAP. E CAP. E CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
△ C2522 △ C2523 △ C2524 C2525 △ C2526 C2528 △ C2901	QETB1VM-228 QETC1VM-107Z QETC1CM-477Z QFV71HJ-104MZ QETB2CM-227 QFN32DJ-222J1 QCZ9029-103M	E CAP. E CAP. E CAP. TF CAP. E CAP. M CAP. C CAP.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	

⚠ Symbol No.	Part No.	Part Name	Description	Loca1
C A P A C	I T O R QCZ9029-103M QFZ9036-104M QFZ9036-104M QFZ9033-102A QCZ9033-102A QCZ9033-102A QCZ9033-102A QCZ9033-102A QEZ0145-687R QFZ9036-104M QFZ0121-272S QFN32DK-333J1 QFN31HJ-272ZJ1 QEHC2AM-107MZ QEHC1HM-336MZ QETC1VM-477Z QEZ0179-337M QETB1EM-228 QCZ9033-102A QETB1VM-228 QCZ9033-102A QETC1EM-477Z QCZ0132-152AZ QETC1CM-107Z QFN31HJ-102ZJ1	C CAP. M.F.CAP. M.F.CAP. C CAP. C CAP. C CAP. E CAP. MFCAP MPP CAP. M CAP. M CAP. E CAP.	0.01 \(\mu \) FAC125V \\ 0.1 \(\mu \) FAC250V \\ 0.1 \(\mu \) FAC250V \\ 1000 \(\mu \) FAC125V \\ 680 \(\mu \) F 200V \\ 0.1 \(\mu \) FAC250V \\ 2700 \(\mu \) F \\ 0.033 \(\mu \) F 200V \\ 2700 \(\mu \) F \\ 0.033 \(\mu \) F 200V \\ 2700 \(\mu \) F \\ 0.033 \(\mu \) F 35V \\ 470 \(\mu \) F 35V \\ 470 \(\mu \) F 35V \\ 470 \(\mu \) F 25V \\ 1000 \(\mu \) F 35V \\ 470 \(\mu \) F 35V \\ 470 \(\mu \) F 35V \\ 1000 \(\mu \) F 35V \\ 1000 \(\mu \) F 35V \\ 470 \(\mu \) F 35V \\ 1000 \(\mu \) F 35V \\ 1000 \(\mu \) F 35V \\ 1500 \(\mu \) F 30V \\ 1500	
T R A N S I T2501 介 T2901 介 T2902	F O R M E R CE42034-002J1 CE41741-001J1 CETS002-001J1	HOR DRIVE TRANS POWER TRANSF SW TRANSF		
C O I L ↑ L2501 ↑ L2502 ↑ L2503 ↑ L2931 ↑ L2932	CE40970-00A CELC052-821J7 CELC901-046J6 CELC901-050J6 CELC901-050J6	LINEARITY COIL CHOKE COIL HEATER CHOKE HEATER CHOKE HEATER CHOKE		
D I O D E △ D2401 D2402 D2403 D2407 △ D2501 △ D2502 D2505 △ D2521	1N4003-T3 RD75E(B)-T5 MA4043(M)-T2 1SS133-T2 ERD07-15-L RU30-C1 RU2-T3 RH1S-T3	SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
△ D2522 △ D2523 △ D2524 △ D2525 D2527 △ D2528 D2541 △ D2901	RGP10J(C1)-T3 1SS81-T2 RU3AM-LFC4 RGP10J(C1)-T3 MA4082(M)-T2 MTZJ7.5S-T2 1SS133-T2 D3SBA60	SI.DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE DIODE BRIDGE		
D2903-04 D2905 △ D2932 D2935-36 D2937 △ D2941 △ D2942 △ D2943 △ D2944 △ D2944 △ D2944 △ D2945 D2947 △ D2948	RGP10J(C1)-T3 RD12E(B2)-T2 S1NB20 1SS133-T2 RD12E(B3)-T2 RU4AM-C1 RU4YX-C1 RU4YX-C1 MA4180(M)-T2 MA165-T2 1SS133-T2 MTZJ7.5S-T2	SI.DIODE ZENER DIODE BRIDGE DIODE SI.DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE ZENER DIODE ZENER DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		

⚠ Symbol No.	Part No.	Part Name	Description	Loca
TRANS Q2501 ↑ Q2511 Q2541 Q2542 Q2543 ↑ Q2901 Q2921 ↑ Q2922	I S T O R 2SC4212-C1 2SD2348-LB 2SA1309A(QR)-T 2SD1408(OY)-LB 2SA1309A(QR)-T 2SA933S(QR)-T 2SC1815(Y)-T 2SA949(Y)C1	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR POWER TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
⚠ Q2923 ⚠ Q2924 ⚠ Q2925 Q2926 ⚠ Q2927	2SA933S(QR)-T SF0R3B42(C1)-T 2SC1815(Y)-T 2SA933S(QR)-T 2SC2785(JH)-T	SI.TRANSISTOR S C R SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
I C ↑ IC2401 ↑ IC2421 ↑ IC2901 ↑ IC2921	AN78L09-Y LA7845 STR-S6301 SE135N	IC I C I.C(HYBRID) I.C(HYBRID)		
OTHER ↑ F2901 H2004 K2401 K2901 K2902 K2931-33 ↑ LF2901 ↑ LF2902	S QMF0007-6R3J1 CM42862-00U-H CE41169-002J2 CE41433-001Z CE42050-001Z CE42050-001Z CE42050-001J2 CELF005-001J1	FUSE HEAT SINK ASSY BEADS CORE CORE CORE CORE LINE FILTER LINE FILTER	6.3A/125V	
↑ PC2901 ↑ RY2901 S2401 TH2401 ↑ TH2901 ↑ VA2901	TLP621(GB) CESK023-001 QSL6A13-C01 CEKN007-332Z CEKP001-001J1 ERZ-C10VK361G	I.C(PH COUPLER) RELAY LEVER SWITCH N.THERMISTOR P.THERMISTOR VARISTOR	V.CENTER	

POWER DEF PW BOARD ASS'Y [SGM-2506A-H2 (AV-35BP5(CA))]

Regarding the parts list for the power def PW board Ass'y [SGM-2506A-H2] of the model for canada, only the different parts from those of the model [SGM-2006A-H2] are described. For further details regarding the other parts, refer to the parts list of the model [SGM-2006A-H2] described on page 4-38 through page 4-40.

	↑ SYMBOL No.	PART No.			
		America Model [US] SGM-2006A-H2	Canada Model [CA] SGM-2506A-H2	PARTS NAME	REMARKS
Δ	R2901	QRC121K-275UZ	QRC121K-275EZ	COMP R	

CRT SOCKET PW BOARD ASS'Y [SGM-3006A-H2 (AV-35BP5)]

⚠ Symbol No.	Part No.	Part Name	Description	Local
RESIST A R3001 A R3114 R3132 R3310-12 R3313-15 A R3322 A R3323 A R3324 A R3361		MG R C R OM R OM R OM R C R C R C R C R	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
C A P A C C3107 △ C3113 C3117 C3118 △ C3321 △ C3361 C3363	I T O R QFN31HK-103ZJ1 QETC2CM-106Z QETC2CM-106Z QETC0JM-107Z QETC2EM-105Z QETC2EM-105Z QCZ0121-102A	M CAP. E CAP. E CAP. E CAP. E CAP. E CAP. C CAP.	0.01 µ F 50V K 10 µ F 160V M 10 µ F 160V M 100 µ F 6.3V M 1 µ F 250V M 1 µ F 250V M 1000 p F 3000V Z	
C O I L L3106 L3301-03 L3304-06	CELP055-150Z CELP055-180Z CELP055-470Z	PEAKING COIL PEAKING COIL PEAKING COIL	15 μ Η 18 μ Η 47 μ Η	
D I O D E D3105-06 D3107 D3301-03 D3304-06 D3313-15 D3361	RH1S-T3 MA165-T2 MA165-T2 1SS244-T2 MA165-T2 RM2C-LFA1	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
TRANS Q3103 Q3104-05 Q3106 Q3107 Q3108 Q3109 Q3110 Q3301-03	I S T O R 2SA1309A(QR)-T 2SC3311A(QR)-T 2SA1309A(QR)-T 2SA1306(Y) 2SC3298(Y) 2SC3311A(QR)-T 2SC1906-T 2SC4502-T	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
Q3304-06 Q3307-09 ⚠ Q3310 ⚠ Q3311 ⚠ Q3312 Q3313-15 Q3316	2SC4544-C1 2SA1321-T 2SC3334-T 2SC3334-T 2SC3334-T 2SC2458(GR)-T 2SA1048(GR)-T	SI.TRANSISTOR SI TRANSISTOR SI TRANSISTOR SI TRANSISTOR SI TRANSISTOR TRANSISTOR TRANSISTOR		
OTHER K3102-05 AR3122 ASK3001	S CE41492-001Z QRH017J-561M CE42446-001	CHOKE COIL F R CRT SOCKET	560 Ω 1W J	

CONTROL PW BOARD ASS'Y [SGM-4004A-H2 (AV-35BP5)]

Local		Description	Part Name	Part No.	Symbol No.
	,		L.E.D.(RED)	SEL1210S	D I O D E D4715
			IFR DETECT UNIT	GP1U771R	I C IC4841
······································			· · · · · · · · · · · · · · · · · · ·	<u> </u>	OTHERS
		CH UP	PUSH SWITCH	OSP1A11-C20Z	S4702
		CH DOWN	PUSH SWITCH	QSP1A11-C20Z	S4703
		FUNCTION	PUSH SWITCH	QSP1A11-C20Z	S4704
		VOL UP	PUSH SWITCH	QSP1A11-C20Z	S4705
		VOL DOWN	PUSH SWITCH	QSP1A11-C20Z	S4706
		POWER	PUSH SWITCH	OSP1A11-C20Z	S4707

AV TERMINAL PW BOARD ASS'Y [SGM-8004A-H2 (AV-35BP5)]

Δ	Symbol No.	Part No.	Part Name	Description	on	Local
	V A R I A B R8209 R8215 R8219	LE RESIST QVPC627-102MZ QVPC627-102MZ QVPC627-502MZ	TRIM. R(COMB TRIM. R(COMB	LEVEL1) $1k \Omega$ B LEVEL2) $1k \Omega$ B PHASE2) $5k \Omega$ B	;	
_	RESIST R8105 R8108 R8109 R8607-08	O R QRD123J-221SX QRD123J-221SX QRD123J-222SX QRD123J-102SX	C R C R C R	220 Ω 220 Ω 2.2kΩ 1kΩ	1/2W J 1/2W J 1/2W J 1/2W J	
	C A P A C I C8101 C8102-04 C8106-07 C8109-10 C8118 C8119 C8120 C8121	T O R NCB21HK-103AY QEKC1CM-106GMZ NCB21HK-102AY NCB21HK-102AY NCB21HK-102AY QEKC1CM-226GMZ QEKC1CM-107MZ QEPC1CM-106MZ	CHIP CAP. E CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. E CAP. BP E CAP.	0.01 µ F 10 µ F 1000 p F 1000 p F 1000 p F 22 µ F 100 µ F 10 µ F	50V K 16V M 50V K 50V K 50V K 16V M 16V M	
	C8122 C8124 C8125 C8201 C8202 C8203 C8204 C8207-08	QEKC1CM-107MZ QEKC1CM-107MZ QEU61AM-108MZ NCT03CH-5R0AY QEN60JM-107Z NCT03CH-8R0AY QEKC1CM-476MZ NCB21HK-103AY	E CAP. E CAP. E CAP. CHIP CAP. CHIP CAP. E CAP. CHIP CAP.	100 µ F 1000 µ F 1000 µ F 5 p F 100 µ F 8 p F 47 µ F 0.01 µ F	16V M 16V M 10V M 1600V H 6.3V M 1600V H 16V M 50V K	
	C8211 C8212 C8213-14 C8215 C8216 C8217 C8218 C8219	QEKC1CM-336MZ NCS21HJ-121AY NCB21HK-103AY NCT03CH-100AY NCB21HK-473AY NCB21HK-103AY QEKC1HM-105GMZ QEN61CM-336Z	E CAP. CHIP C CAP. CHIP CAP. CHIP CAP. CHIP CAP. CHIP CAP. E CAP. BP E CAP.	33 µ F 120 p F 0.01 µ F 10 p F 0.047 µ F 0.01 µ F 1 µ F 33 µ F	16V M 50V J 50V K 1600V H 50V K 50V K 50V M 16V M	
	C8601-04 C8605-08 C8609-10 C8612-13 C8614-16 C8618 C8621	QEKC1HM-105GMZ NCT03CH-101AY NCT03CH-271AY QEPC1EM-335MZ QEKC1HM-105GMZ QEKC1HM-105GMZ QEKC1CM-107MZ	E CAP. CHIP CAP. CHIP CAP. BP E CAP. E CAP. E CAP. E CAP.	1 μ F 100 p F 270 p F 3.3 μ F 1 μ F 1 μ F 100 μ F		

∆ S	ymbol No.	Part No.	Part Name	Description	Local
C	CAPACI 8622 8630-31 8632	T O R QEKC1CM-106GMZ NCB21HK-102AY QEKC1CM-476MZ	E CAP. CHIP CAP. E CAP.	10 μF 16V M 1000 pF 50V K 47 μF 16V M	
T	Γ R A N S F 8201 8202	ORMER CE41301-001J1 CE40176-001J1	BAND PASS FILTER DL P TRANSF	,	
L:	COIL 8201 8203 8204	CELP055-220Z CELP055-220Z CELP055-5R6Z	PEAKING COIL PEAKING COIL PEAKING COIL	22 μ H 22 μ H 5.6 μ H	
D8 D8 D8 D8 D8	DIODE 8101-04 8106 8201 8601-04 8605-09 8620-23 8630-33 8640-43	MA3120-W MA3120-W M1MA151K-W MA3120-W M1MA151K-W MA3068(M)-W MA3068(M)-W	ZENER DIODE ZENER DIODE CHIP DIODE ZENER DIODE CHIP DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
Q; Q; Q; Q; Q; Q;	RANSI 8101-03 8201-05 8206 8207-10 8601-02 8603 8604-05 8606	S T O R 2SA1037K(QR)-W 2SC2412K(QR)-W 2SA1037K(QR)-W 2SC2412K(QR)-W DTC363TK-W DTA144TK-W DTC363TK-W DTA144TK-W	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR DIGI.TRANSISTOR		
	8607 8608	2SC2412K(QR)-W 2SA1037K(QR)-W	SI.TRANSISTOR SI.TRANSISTOR		٠
1(C C C C C C C C C C C C C C C C C C C	CXA1545AS AN78L09-Y	I.C(MONO-ANA) IC		
Cr Dl Dl J8 J8 J8 J8	8805-06 8807-08 8809	CM22763-C02-VH SBSB3010M CHA401N-35R-J CE42456-002 CE42345-001 CEMN057-001 AX49607-024 CEMN045-001 QMCC008-C01 CEMN073-001 AX49607-020 CEMT016-001 QSS1F23-C06	TERMINAL BOARD TAPPING SCREW HQF SOCKET DELAY LINE DELAY LINE PIN JACK MINI JACK PIN JACK DIN JACK PIN JACK MINI JACK FIN JACK TERMINAL SLIDE SWITCH	×5 MAIN/SURROUND1&2	

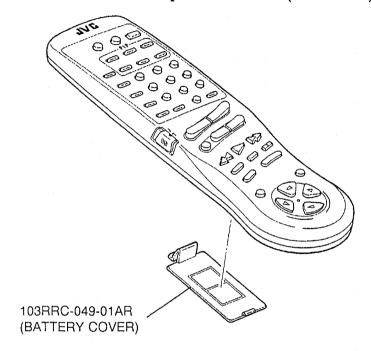
DBF PW BOARD ASS'Y [SGM-9201A-H2 (AV-35BP5)]

Δ	Symbol No.	Part No.	Part Name	Description	Local
	V A R I A B R9504	LE RESIST QVPA803-503M		MODULATION) 50kΩ B	
	RESIST R9553	O R QRZ0039-562	COMP.R	5.6k Ω	- 14
Δ	C A P A C I C9501 C9502 C9503 C9512 C9515 C9517 C9520	T O R QFN32DJ-683J1 QETC2AM-106Z QFV71HJ-104MZ QFZ0117-1002S QFZ0117-1001S QFV71HJ-124MZ QCZ0133-102A	M CAP. E CAP. TF CAP. MPP CAP. TF CAP. TF CAP. C CAP.	$\begin{array}{ccccc} 0.068\muF & 200V & J \\ & 10\muF & 100V & M \\ 0.1\muF & 50V & J \\ 0.01\muF1.4kVH & \pm 2.5\% \\ 1000pF1.4kVH & \pm 2.5\% \\ 0.12\muF & 50V & J \\ 1000pF & 10kV \\ \end{array}$	
Δ	TRANSF T9501	O R M E R CE41576-00AJ1	H PICKUP TRANSF	:	
	DIODE D9501-02 D9504 D9506 D9509 D9511	1SS81-T2 ES1F-LFG2 1SS133-T2 ES1F-LFG2 1SS133-T2	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE		
Δ	T R A N S I Q9501-02 Q9508 Q9509 Q9510 Q9511 Q9515 Q9516-17	S T O R 2SC1740S(QR)-T 2SA933S(QR)-T 2SC1740S(QR)-T 2SC4256 2SC4256 2SA933S(QR)-T 2SC1740S(QR)-T	SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR SI.TRANSISTOR		
-,	I C IC9501	AN78L12-Y	I C		.,,
<u></u>	OTHERS FR9539 SG9501	QRH127J-101M CE42447-302	F R ARRESTOR	100 Ω 1/2W J	

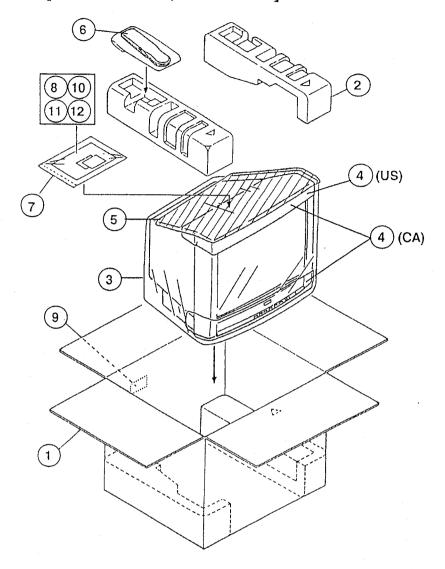
PIP MODULE PW BOARD ASS'Y [SGM-P001A-H2 (AV-35BP5)]

△ Symbol No.	Part No.	Part Name	Description	Local
	SGM-P001A-H2	PIP MODULE		

REMOTE CONTROL UNIT [RM-C723-01-A (AV-35BP5)]



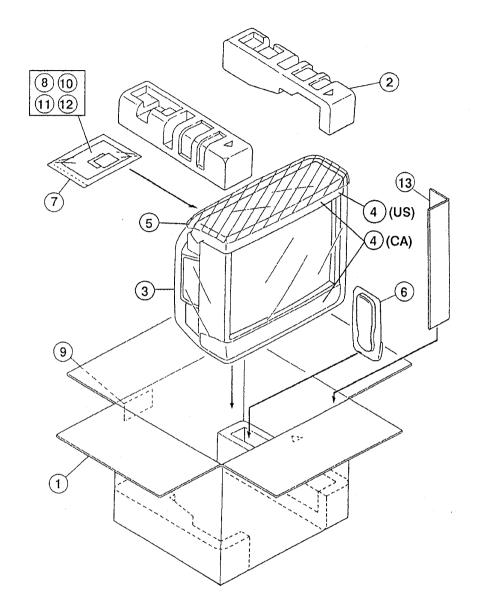
PACKING [AV-27/31BP5, AV-31BM5]



PACKING PARTS LIST [AV-27/31BP5, AV-31BM5]

Description	No. Part No. Part Name		⚠ Ref.No.
(AV-27BP5)	PACKING CASE	CP10972-082-A	1
	PACKING CASE	CP10972-083-A	1
	CUSHION ASSY	CP11242-A0B-A	2
	CHSHION ASSY	CP11251-0AB-A	2
, ,	POLY BAG	CP30056-002-A	2 3
(AV-31BP5,BM5)	POLY BAG	CP30056-004-A	3
(AV-27BP5(US))	TOP COVER	CP30055-001-A	4 .
(AV-27BP5(CA))(×2)	TOP COVER	CP30055-001-A	4
(AV-31 " (US))	TOP COVER	CP30055-002-A	4
	TOP COVER	CP30055-002-A	4
	PROTECT SHEET	CP30341-001-A	.5
	REMOCON UNIT	RM-C723-01-A	6 6
	REMOCON UNIT	RM-C722-01-A	6
, , , ,	POLY BAG	CM30751-010	7
(US)	INST BOOK	273135P5UIBA-A	∆ 8
(CA)	INST BOOK	273135P5CIBA-A	∆ 8
(US)	REC KEEPING CARD	CM31900-00A-A	9
` ,		BT-51006-2-A	10
` /		BT-20025L-A	11
(CA)	SVC CENTER LIST	BT-20071B-A	12
	(AV-27BP5) (AV-31BP5,31BM5) (AV-27BP5) (AV-31BP5,BM5) (AV-27BP5) (AV-27BP5) (AV-27BP5(US)) (AV-27BP5(CA))(×2) (AV-31"(US)) (AV-31"(CA))(×2) (AV-31"(CA))(×2) (CA) (US) (US) (US) (US) (US) (US) (US) (CA)	PACKING CASE PACKING CASE PACKING CASE PACKING CASE CUSHION ASSY CHSHION ASSY POLY BAG POLY BAG TOP COVER TOP COVER TOP COVER PROTECT SHEET REMOCON UNIT REMOCON UNIT REMOCON UNIT POLY BAG INST BOOK INST BOOK REC KEEPING CARD WARRANTY CARD (AV-27BP5) (AV-27BP5,BM5) (AV-27BP5(US)) (AV-27BP5(CA))(×2) (AV-27BP5(CA))(×2) (AV-31" (US)) (AV-27BP5,31BP5) (AV-31BM5) (CA) (US) (CA)	CP10972-082-A PACKING CASE (AV-27BP5) CP10972-083-A PACKING CASE (AV-31BP5,31BM5) CP11242-A0B-A CUSHION ASSY (AV-27BP5) CP11251-0AB-A CHSHION ASSY (AV-31BP5,BM5) CP30056-002-A POLY BAG (AV-27BP5) CP30055-001-A TOP COVER (AV-27BP5(US)) CP30055-001-A TOP COVER (AV-27BP5(CA))(×2) CP30055-002-A TOP COVER (AV-27BP5(CA))(×2) CP30055-002-A TOP COVER (AV-31" (US)) CP30055-002-A TOP COVER (AV-31" (CA))(×2) CP30341-001-A PROTECT SHEET (CA) RM-C723-01-A REMOCON UNIT (AV-27BP5,31BP5) RM-C722-01-A REMOCON UNIT (AV-31BM5) CM30751-010 POLY BAG 273135P5UIBA-A INST BOOK (US) 273135P5CIBA-A INST BOOK (CA) CM31900-00A-A REC KEEPING CARD (US) BT-51006-2-A REGIST. CARD (US) BT-51006-2-A WARRANTY CARD (CA)

PACKING [AV-35BP5]



PACKING PARTS LIST [AV-35BP5]

Local	Description	Part Name	Part No.	⚠ Ref.No.
*		PACKING CASE	CP10972-084-A	1
*	4pcs in 1set	CUSHION ASSY	CP10780-B0A-A	2
*		POLY BAG	CP30093-003-A	3
*	(US)	TOP COVER	CP30055-002-A	4
*	$(CA)(\times 2)$	TOP COVER	CP30055-002-A	4
*	(CA)	PROTECT SHEET	CP30341-001-A	5
*	(- /	REMOCON UNIT	RM-C723-01-A	6
		POLY BAG	CM30751-010	7
*	(US)	INST BOOK	273135P5UIBA-A	∆ 8
*	(CA)	INST BOOK	273135P5CIBA-A	△ 8
*	(US)	REC KEEPING CARD	CM31900-00A-A	9
*	(US)	REGIST. CARD	BT-51006-2-A	10
*	(CA)	WARRANTY CARD	BT-20025L-A	11
*	(CA)	SVC CENTER LIST	BT-20071B-A	12
*	$(\times4)$	SUPORT CORNER	CP30801-003-A	13

JVC

SERVICE MANUAL

COLOR TV

AV-27BP5(US/CA) / AV-31BP5(US/CA) AV-31BM5(US/CA) / AV-35BP5(US/CA) BASIC CHASSIS

GM

Supplementary

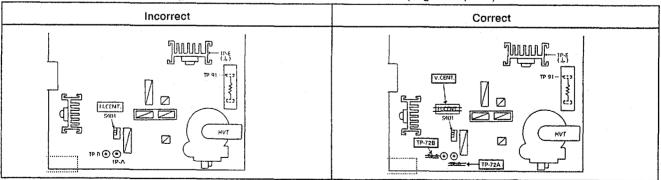
Since some details of the AV-27/31/35BP5,AV-31BM5 service manual (No.50850, Jul. 1994) were incorrect, we are informing you of these errors and of the correct descriptions.

CORRECTED ITEMS

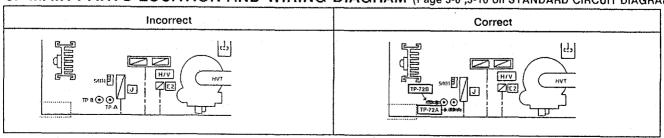
1. SPECIFICATION (AV-27BP5, Page 2-2)

Item	Incorrect content	Correct content
High Voltage	31.0kV ± 1.3kV (at zero beam current)	31.0kV +1.0 / -1.3 kV (at zero beam current)

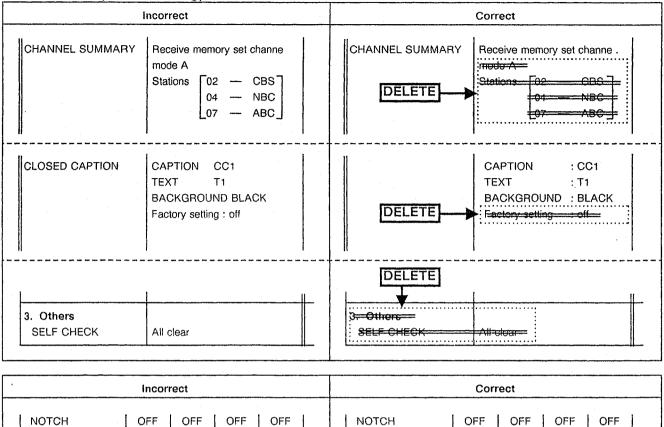
2. MEMORY IC & ADJUSTMENT PARTS LOCATION (Page 2-11, 2-15)



3. MAIN PARTS LOCATION AND WIRING DIAGRAM (Page 3-6, 3-10 on STANDARD CIRCUIT DIAGRAM)



4. TABLE 1 (User setting) (Page 2-12)



LIVE EFFEX

VM (∧V-3<u>6</u>BP5)

DELETE

OFF

ON

OFF

ON

OFF

OFF

OFF

ON

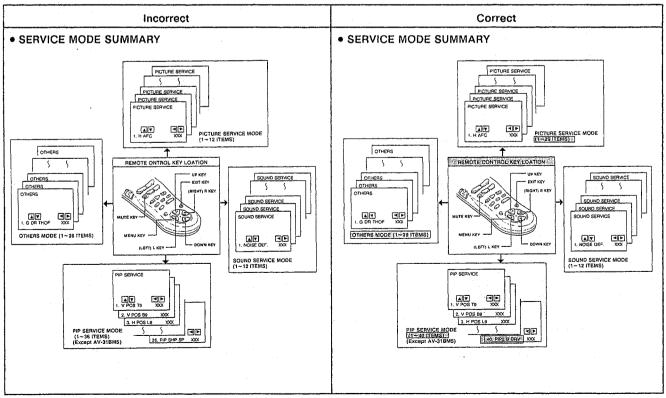
5. SERVICE ADJUSTMENT PROCEDURE AND RELEASE (Page 2-17)

OFF

OFF

OFF

ON



LIVE EFFEX

VM (AV-35BP5)

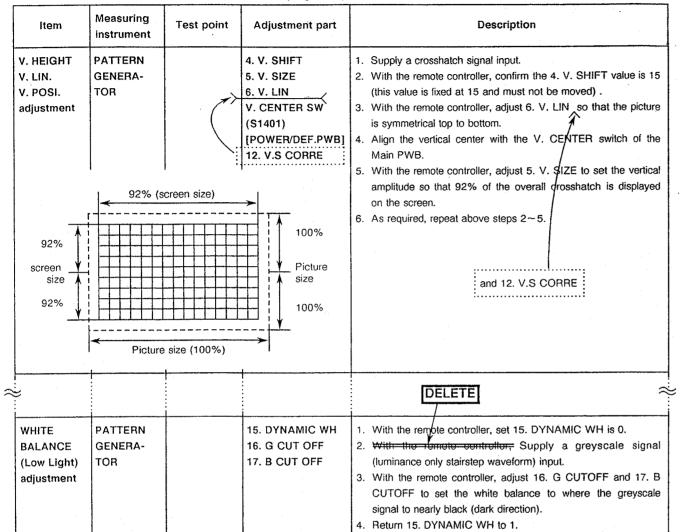
OFF

ON

OFF

ON

PICTURE SERVICE MODE ADJUSTMENT (Page 2-22)



PIP SERVICE MODE ADJUSTMENT (Except AV-31BM5) (Page 2-26)

Item	Measuring instrument	Test point	Adjustment part	Description
PIP CONTRAST adjustment			30. PIP1 CONT. 33. PIP2 CONT.	Receive a broadcast. Display the PIP picture. Adjust 30. PIP1 CONT for the same optimum picture as the main picture.
} :			DELETE ->	4 : Use the remote controller SWAP key to interchange the main a nd PIP pictures: 5 : Adjust 33. PIP2 CONT for optimum picture:
PIP TINT & COLOR adjustment			28. PIP1 TINT 29. PIP1 COLOR 91. PIP2 TINT 32. PIP2 COLOR	1. Receive a broadcast. 2. Display the PIP picture. 3. Adjust 28. PIP1 TINT and 29. PIP COLOR for the same optimum picture as the main picture. 4. Use the remote controller SWAP key to interchange the main and PIP pictures. 5. Adjust 31. PIP2 TINT and 32. PIP2 COLOR for optimum picture.

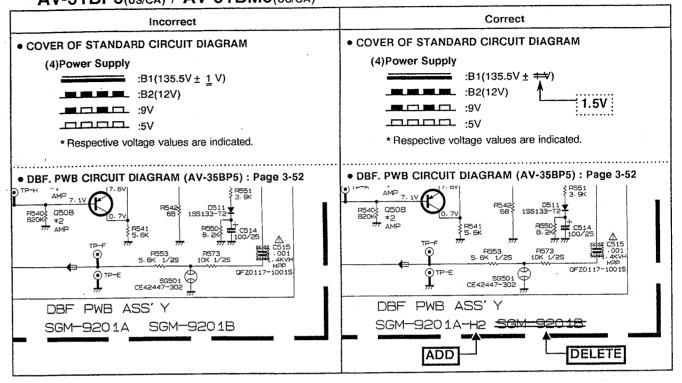
(No.50850B) 3

SOUND SERVICE MODE ADJUSTMENT (Page 2-24)

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL adjustment			2. INPUT LVL	Confirm 2. INPUT LVL is at the reference value. reference:
MTS ST VCO adjustment			3. FH MONITOR 4. STEREO VCO	1. Confirm 4. STEREO VCO is at the standard adjustment value. 2. Correctly receive a stereo broadcast and confirm absence of abnormal sound or other problems. 3. If not normal, fine adjust the reference value.
MTS FILTER adjustment			5-PLOT CANC 6. DBX FILTER	1. Confirm B. PILOT CANC and 6. FILTER at the standard reference value. 2. Correctly receive a stereo broadcast and confirm absence of abnormal sound or other problems. 3. If not normal, fine adjust the reference value.
MTS SEPA. adjustment	OSCILLO- SCOPE		7. LOW F SEPA 8. HIGH F SEPA	 Set the TV multichannel sound signal generator for generating stereo signal and output signal of about 300Hz from the legichannel. Connect an oscilloscope to the "L" output and obtain a clear view of 1- cycle portion of 300Hz waveforms. Change connection of the oscilloscope to the "R" output an expand the voltage axis. Adjust the 7. LOW F SEPA and minimize the akkHz crosstal portion. Next set the signal for 3 kHz and in the same manner, adjust 8. HIGH F SEPA.
L-(Channel signa	1 cycle		Minimum R-Channel crosstalk portion
MTS SAP VCO adjustment		DELETE	0. SAP VCO	Confirm 10. SAP VCO is at the reference value. Confirm an SAP broadcast can be received normally. If not normal, fine adjust the reference value.
•				

4 (No.50850B)

6. AV-27BP5(US/CA) / AV-35BP5(US/CA) AV-31BP5(US/CA) / AV-31BM5(US/CA) STANDARD CIRCUIT DIAGRAM



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